

&lt;400&gt; 154

Gly Arg His Ala Gly Val Cys Pro Ser Val Cys Pro Trp Val His Val  
 1 5 10 15  
 Cys Val Cys Ile Cys Gly Gly Thr Gly Val Cys Pro Ser Val Cys Met  
 20 25 30  
 Gly Pro Cys Ile Cys Val Tyr Ile Cys Gly Asp Met Tyr Met Cys Val  
 35 40 45  
 Cys Met Asn Arg Cys Lys Trp Gly Ala Leu Arg Cys Val Cys Val Cys  
 50 55 60  
 Ser Cys Thr Arg Val  
 65

&lt;210&gt; 155

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 155

acgcgtatcg accaccatgt cgtcgtcacc acggcaagcg ctctcggcgg gcgagaacga  
 60  
 gtgaacatgg ccgagttgat ggccgatgcc ggcaccggca cgaaaccgtc ctacctacag  
 120  
 cgatcttctt cctcgatcac ctcgtttgaa gtggacaggg aacaaagaca ctcagacaac  
 180  
 gcgcccaggg aagtaaaaag ttcgctctcc gatcacggcc gtcgcgcgag tgcacaggga  
 240  
 gaactgggca cctcgcaagc tacgccaccg cgatccatgc ccccgcccgt atcttccgcc  
 300  
 tcctctacct ccccttacc gatcagcatt atatccgac taga  
 344

&lt;210&gt; 156

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 156

Met Ala Glu Leu Met Ala Asp Ala Ala Thr Gly Thr Lys Pro Ser Tyr  
 1 5 10 15  
 Leu Gln Arg Ser Ser Ser Ser Ile Thr Ser Phe Glu Val Asp Arg Glu  
 20 25 30  
 Gln Arg His Ser Asp Asn Ala Pro Gln Glu Val Lys Ser Ser Leu Ser  
 35 40 45  
 Asp His Gly Arg Arg Ala Ser Ala Gln Gly Glu Leu Gly Thr Ser Gln  
 50 55 60  
 Ala Thr Pro Pro Arg Ser Met Pro Pro Pro Val Ser Ser Ala Ser Ser  
 65 70 75 80  
 Thr Ser Pro Leu Pro Ile Ser Ile Ile Ser Asp Leu  
 85 90

&lt;210&gt; 157

&lt;211&gt; 6816

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 157  
nnagatctcc aaagaaccaa aaggatcaat atttctggat tcctgtatgg gtgtcgttca  
60  
gaacaacaaa gtcaggcggt ttgcttttga gctcaagatg caggacaaaa gtagttatct  
120  
cttggcagca gacagtgaag tggaaatgga agaattggatc acaattctaa ataagatcct  
180  
ccagctcaac tttgaagctg caatgcaaga aaagcgaaat ggcgactctc acgaagatga  
240  
tgaacaaagc aaattggaag gttctgggtc cggttttagat agctacctgc cggaacttgc  
300  
caagagtgcag agagaagcag aaatcaaact gaaaagtga agcagagtca aactttttta  
360  
tttggacca gatgccaga agcttgactt ctcacagct gagccagaag tgaagtcatt  
420  
tgaagagaag tttgaaaaa ggatccttgt caagtgcatt gatttatctt tcaatttgca  
480  
atgctgtgtt gccgaaaatg aagaaggacc cactacaaat gttgaacctt tctttgttac  
540  
tctatcctg tttgacataa aatacaaccg gaagatttct gccgatttcc acgtagacct  
600  
gaaccatttc tcagtgggc aaatgatgc caccacgtcc ccggcgctga tgaatggcag  
660  
tgggccgaaa cccaatctgc ctcaggggc atccttcag aagccgccat gcagtatccg  
720  
aagcagggaa tattttcagt cacttgtcct catccagata tatttcttgt ggccagaatt  
780  
gaaaaagtcc ttcaggggag catcacacat tgcgtgagc catatatgaa aagttcagac  
840  
tcttctaagg tggcccagaa ggtgctgaag aatgccaaagc aggcagcca aagactagga  
900  
cagtatagaa tgccatttgc ttgggcagca aggacattgt ttaaggatgc atctggaaat  
960  
cttgacaaaa atgccagatt ttctgccatc tacaggcaag acagcaataa gctatccaat  
1020  
gatgacatgc tcaagttact tgcagacttt cggaaacctg agaagatggc taagctccca  
1080  
gtgattttag gcaatctaga cattacaatt gataatgttt ctcagactt ccctaattat  
1140  
gttaattcat catacattcc caaaaacaa ttgaaacct gcagtaaac tcccatcacg  
1200  
tttgaagtgg aggaatttgt gccctgcata ccaaacaca ctcagcctta caccatctac  
1260  
accaatcacc tttacgttta tctaagtac ttgaaatacg acagtcagaa gtcttttgcc  
1320  
aaggctagaa atattgcgat ttgcattgaa ttcaaagatt cagatgagga agactctcag  
1380  
ccccttaagt gcatttatgg cagacctggt gggccagttt tcacaagaag cgcctttgct  
1440  
gcagttttac accatcacca aaaccagaa ttttatgatg agattaaaat agagttgccc  
1500  
actcagctgc atgaaaagca ccacctgtt ctcacattct tccatgtcag ctgtgacaac  
1560

tcaagtaaag gaagcacgaa gaagagggat gtcgttgaaa cccaagttgg ctactcctgg  
1620  
cttccccctcc tgaaagacgg aaggggtggtg acaagcgagc agcacatccc ggtctcggcg  
1680  
aaccttcctt cgggctatct tggtaccag gagcttggga tgggcaggca ttatggtccg  
1740  
gaaattaaat gggtagatgg aggcaagcca ctgctgaaaa ttccactca tctggtttct  
1800  
acagtgtata ctgaggatca gcatttacat aattttttcc agtactgtca gaaaaccgaa  
1860  
tctggagccc aagccttagg aaacgaactt gtaaagtacc ttaagagtct gcatgcgatg  
1920  
gaaggccacg tgatgatcgc cttcttgccc actatcctaa accagctgtt ccgagtcctc  
1980  
accagagcca cacaggaaga agtcgcggtt aacgtgactc gggtcattat tcatgtgggt  
2040  
gccagtgcc atgaggaagg attggagagc cacttgaggt catatgttaa gtacgcgtat  
2100  
aaggctgagc catatgttgc ctctgaatac aagacagtgc atgaagaact gaccaaattc  
2160  
atgaccacga ttctcaagcc ttctgccgat ttcctcacca gcaacaaact actgaagtac  
2220  
tcatggtttt tctttgatgt actgatcaaa tctatggctc agcatttgat agagaactcc  
2280  
aaagttaaht tgctgcgaaa ccagagattt cctgcctcct atcatcatgc agtggaaacc  
2340  
gttgtaaata tgctgatgcc acacatcact cagaagtttc gagataatcc agaggcatct  
2400  
aagaacgcga atcatagcct tgctgtcttc atcaagagat gtttcacctt catggacagg  
2460  
ggctttgtct tcaagcagat caacaactac attagctgtt ttgctcctgg agacccaaag  
2520  
accctctttg aatacaagtt tgaatttctc cgtgtagtgt gcaaccatga acattatatt  
2580  
ccgttgaaht taccatgcc atttggaata ggcaggattc aaagatacca agacctccag  
2640  
cttgactact cattaacaga tgagttctgc agaaaccact tcttgggtggg actgttactg  
2700  
agggaggtgg ggacagccct ccaggagtcc cgggaggtcc gtctgatcgc catcagtgtg  
2760  
ctcaagaacc tgctgataaa gcattctttt gatgacagat atgcttcaag gagccatgag  
2820  
gcaaggatag ccacctcta cctgcctctg tttggctcgc tgattgaaaa cgtccagcgg  
2880  
atcaatgtga gggatgtgtc acccttcctt gtgaacgcgg gcatgactgt gaaggatgaa  
2940  
tccctggctc taccagctgt gaatccgctg gtgacgccgc agaagggag caccctggac  
3000  
aacagcctgc acaaggacct gctgggcgcc atctccggca ttgcttctcc atatacaacc  
3060  
tcaactccaa acatcaacag tgtgagaaat gctgattcga gaggatctct cataagcaca  
3120  
gattcgggta acagccttcc agaaaggaat agtgagaaga gcaattccct ggataagcac  
3180

caacaaagta gcacattggg aaattccgtg gtccgctgtg ataaacttga ccagtctgag  
3240  
attaagagcc tactgatgtg ttctctctac atcttaaaga gcatgtctga tgatgctttg  
3300  
tttacatatt ggaacaaggc ttcaacatct gaacttatgg atttttttac aatatctgaa  
3360  
gtctgcctgc accagttcca gtacatgggg aagcgataga tagccagaac aggaatgatg  
3420  
catgccagat tgcagcagct gggcagcctg gataactctc tcacttttaa ccacagctat  
3480  
ggccactcgg acgcagatgt tctgcaccag tcattacttg aagccaacat tgctactgag  
3540  
gtttgcctga cagctctgga cagcttttct ctatttacat tggcgtttaa gaaccagctc  
3600  
ctggccgacc atggacataa tctctctatg aaaaaagttt ttgatgtcta cctgtgtttt  
3660  
cttcaaaaac atcagtctga aacggcttta aaaaatgtct tcactgcctt aaggctctta  
3720  
attataagt ttccctcaac attctatgaa gggagagcgg acatgtgtgc ggctctgtgt  
3780  
tacgagattc tcaagtgtg taactccaag ctgagctcca tcaggacgga ggctcccag  
3840  
ctgctctact tctgatgag gaacaacttt gattacactg gaaagaagtc ctttgcctgg  
3900  
acacatttgc aagtcatcat atctgtcagc cagctgatag cagacgttgt tggcattggg  
3960  
ggaaccagat tccagcagtc cctgtccatc atcaacaact gtgccaacag tgaccggctt  
4020  
attaagcaca ccagcttctc ctctgatgtg aaggacttaa ccaaaaggat acgcacgggtg  
4080  
ctaattggcca ccgccagat gaaggagcat gagaacgacc cagagatgct ggtggacctc  
4140  
cagtacagcc tggccaaatc ctatgccagc acgcccagc tcaggaagac gtggctcgac  
4200  
agcatggcca ggatccatgt caaaaatggc gatctctcag aggcagcaat gtgctatgtc  
4260  
cacgtaacag ccctagtggc agaatatctc acacggaaag aagcagtcca gtgggagccg  
4320  
ccccttctcc cccacagcca tagcgctctg ctgaggagga gccggggagg cgtgtttaga  
4380  
caaggatgca ccgccttcag ggtcattacc ccaaacatcg acgaggaggc ctccatgatg  
4440  
gaagacgtgg ggatgcagga tgtccatttc aacgaggatg tgctgatgga gctccttgag  
4500  
cagtgcgcag atggactctg gaaagccgag cgctacgagc tcattgccga catctacaaa  
4560  
cttatcatcc ccatttatga gaagcggagg gattttgaga ggctggccca tctgtatgac  
4620  
acgtgcacc gggcctacag caaagtgacc gaggtcatgc actcgggccc caggcttctg  
4680  
gggacctact tccgggtagc cttcttcggg caggcagcgc aataccagtt tacagacagt  
4740  
gaaacagatg tggagggatt ctttgaagat gaagatggaa aggagtatat ttacaaggaa  
4800



cccaaactca caccgctgtc ggaaatttct cagagactcc ttaaactgta ctcggataaa  
4860  
tttggttctg aaaatgtcaa aatgatacag gattctggca aggtcaaccc taaggatctg  
4920  
gattctaagt atgcctacat ccaggtgact cagtcaccc ccttctttga cgaaaaagag  
4980  
ttgcaagaaa ggaaaacaga gtttgagaga tcccacaaca tccgccgctt catgtttgag  
5040  
atgccattta cgcagaccgg gaagaggcag ggcgggggtg aagagcagtg caaacggcgc  
5100  
accatcctga cagccataca ctgcttcctt tatgtgaaga agcgcacccc tgtcatgtac  
5160  
cagcaccaca ctgacctgaa ccccatcgag gtggccattg acgagatgag taagaagggtg  
5220  
gcggagctcc ggcagctgtg ctccctggcc gaggtggaca tgatcaaact gcagctcaaa  
5280  
ctccagggca gcgtgagtgt tcaggtcaat gctggccac tagcatatgc gcgagctttc  
5340  
ttagatgata caaacacaaa gcgatatcct gacaataaag tgaagctgct taaggaagtt  
5400  
ttcaggcaat ttgtggaagc ttgcggtcaa gccttagcgg taaacgaacg tctgattaaa  
5460  
gaagaccagc tcgagtatca ggaagaaatg aaagccaact acagggaaat ggcgaaggag  
5520  
ctttctgaaa tcatgcatga gcagatctgc cccctggagg agaagacgag cgtcttaccg  
5580  
aattcccttc acatcttcaa cgccatcagt gggactccaa caagcacaat ggttcacggg  
5640  
atgaccagct cgtcttcggt cgtgtgatta catctcatgg cccgtgtgtg gggacttgct  
5700  
ttgtcatttg caaactcagg atgctttcca aagccaatca ctggggagac cgagcacagg  
5760  
gaggaccaag gggaagggga gagaaggaa ataaagaaca acgttatttc ttaacagact  
5820  
ttctatagga gttgtaagaa ggtgcacata tttttttaaa tctcactggc aatattcaaa  
5880  
gttttcattg tgtcttaaca aagggtgtgt agacactctt gagctggact tagattttat  
5940  
tcttccttgc agagtagtgt tagaatagat ggcctacaga aaaaaaagggt tctgggatct  
6000  
acatggcagg gagggctgca ctgacattga tgccctgggg acccttttgcc tcgaggctga  
6060  
gctggaaaat cttgaaaata tttttttttt cctgtggcac attcagggtg aatacaagaa  
6120  
ctatttttgt gactagtttt tgatgaccta agggaactga ccattgtaat tttgtacca  
6180  
gtgaaccagg agatttagtg cttttatatt catttccttg catttaagaa aatatgaaag  
6240  
cttaaggaat tatgtgagct taaaactagt caagcagttt agaaccaaag gcctatatta  
6300  
ataaccgcaa ctatgctgaa aagtacaaag tagtacagta tattgttatg tacatatcat  
6360  
tgttaataca gtccctggcat tctgtacata tatgtattac atttctacat ttttaatact  
6420

cacatgggct tatgcattaa gtttaattgt gataaatttg tgctgttcca gtatatgcaa  
 6480  
 tacactttta tggtttattc ttgtacataa aaatgtgcaa tatggagatg tatacagtct  
 6540  
 ttactatatt aggtttataa acagttttta gaatttcac cttttgcca aatgggtggag  
 6600  
 tatgtaattg gtaaatcata aatcctgtgg tgaatgggtg tgtacttta agctgtcacc  
 6660  
 atgttatatt ttcttttaag acattaattt agtaatttta tatttgggaa aataaaggtt  
 6720  
 ttttaattta ttttaactga atcaactgcc tgctgtaatt aaacattctg taccacatct  
 6780  
 gtattaaaaa gacattgctg accattaaaa aaaaaa  
 6816

&lt;210&gt; 158

&lt;211&gt; 1572

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 158

Ala	Ser	Gly	Asn	Leu	Asp	Lys	Asn	Ala	Arg	Phe	Ser	Ala	Ile	Tyr	Arg
1			5					10						15	
Gln	Asp	Ser	Asn	Lys	Leu	Ser	Asn	Asp	Met	Leu	Lys	Leu	Leu	Ala	
	20						25					30			
Asp	Phe	Arg	Lys	Pro	Glu	Lys	Met	Ala	Lys	Leu	Pro	Val	Ile	Leu	Gly
	35					40					45				
Asn	Leu	Asp	Ile	Thr	Ile	Asp	Asn	Val	Ser	Ser	Asp	Phe	Pro	Asn	Tyr
	50					55					60				
Val	Asn	Ser	Ser	Tyr	Ile	Pro	Thr	Lys	Gln	Phe	Glu	Thr	Cys	Ser	Lys
65				70					75					80	
Thr	Pro	Ile	Thr	Phe	Glu	Val	Glu	Glu	Phe	Val	Pro	Cys	Ile	Pro	Lys
			85					90					95		
His	Thr	Gln	Pro	Tyr	Thr	Ile	Tyr	Thr	Asn	His	Leu	Tyr	Val	Tyr	Pro
			100					105					110		
Lys	Tyr	Leu	Lys	Tyr	Asp	Ser	Gln	Lys	Ser	Phe	Ala	Lys	Ala	Arg	Asn
	115						120					125			
Ile	Ala	Ile	Cys	Ile	Glu	Phe	Lys	Asp	Ser	Asp	Glu	Glu	Asp	Ser	Gln
	130						135				140				
Pro	Leu	Lys	Cys	Ile	Tyr	Gly	Arg	Pro	Gly	Gly	Pro	Val	Phe	Thr	Arg
145				150					155					160	
Ser	Ala	Phe	Ala	Ala	Val	Leu	His	His	His	Gln	Asn	Pro	Glu	Phe	Tyr
			165					170						175	
Asp	Glu	Ile	Lys	Ile	Glu	Leu	Pro	Thr	Gln	Leu	His	Glu	Lys	His	His
	180							185				190			
Leu	Leu	Leu	Thr	Phe	Phe	His	Val	Ser	Cys	Asp	Asn	Ser	Ser	Lys	Gly
	195						200					205			
Ser	Thr	Lys	Lys	Arg	Asp	Val	Val	Glu	Thr	Gln	Val	Gly	Tyr	Ser	Trp
	210					215					220				
Leu	Pro	Leu	Leu	Lys	Asp	Gly	Arg	Val	Val	Thr	Ser	Glu	Gln	His	Ile
225				230					235					240	
Pro	Val	Ser	Ala	Asn	Leu	Pro	Ser	Gly	Tyr	Leu	Gly	Tyr	Gln	Glu	Leu
			245					250					255		
Gly	Met	Gly	Arg	His	Tyr	Gly	Pro	Glu	Ile	Lys	Trp	Val	Asp	Gly	Gly

505

690	695	700
Ser Thr Pro Asn Ile Asn Ser Val Arg Asn Ala Asp Ser Arg Gly Ser		
705	710	715
Leu Ile Ser Thr Asp Ser Gly Asn Ser Leu Pro Glu Arg Asn Ser Glu		
725	730	735
Lys Ser Asn Ser Leu Asp Lys His Gln Gln Ser Ser Thr Leu Gly Asn		
740	745	750
Ser Val Val Arg Cys Asp Lys Leu Asp Gln Ser Glu Ile Lys Ser Leu		
755	760	765
Leu Met Cys Phe Leu Tyr Ile Leu Lys Ser Met Ser Asp Asp Ala Leu		
770	775	780
Phe Thr Tyr Trp Asn Lys Ala Ser Thr Ser Glu Leu Met Asp Phe Phe		
785	790	795
Thr Ile Ser Glu Val Cys Leu His Gln Phe Gln Tyr Met Gly Lys Arg		
805	810	815
Tyr Ile Ala Arg Thr Gly Met Met His Ala Arg Leu Gln Gln Leu Gly		
820	825	830
Ser Leu Asp Asn Ser Leu Thr Phe Asn His Ser Tyr Gly His Ser Asp		
835	840	845
Ala Asp Val Leu His Gln Ser Leu Leu Glu Ala Asn Ile Ala Thr Glu		
850	855	860
Val Cys Leu Thr Ala Leu Asp Thr Leu Ser Leu Phe Thr Leu Ala Phe		
865	870	875
Lys Asn Gln Leu Leu Ala Asp His Gly His Asn Pro Leu Met Lys Lys		
885	890	895
Val Phe Asp Val Tyr Leu Cys Phe Leu Gln Lys His Gln Ser Glu Thr		
900	905	910
Ala Leu Lys Asn Val Phe Thr Ala Leu Arg Ser Leu Ile Tyr Lys Phe		
915	920	925
Pro Ser Thr Phe Tyr Glu Gly Arg Ala Asp Met Cys Ala Ala Leu Cys		
930	935	940
Tyr Glu Ile Leu Lys Cys Cys Asn Ser Lys Leu Ser Ser Ile Arg Thr		
945	950	955
Glu Ala Ser Gln Leu Leu Tyr Phe Leu Met Arg Asn Asn Phe Asp Tyr		
965	970	975
Thr Gly Lys Lys Ser Phe Val Arg Thr His Leu Gln Val Ile Ile Ser		
980	985	990
Val Ser Gln Leu Ile Ala Asp Val Val Gly Ile Gly Gly Thr Arg Phe		
995	1000	1005
Gln Gln Ser Leu Ser Ile Ile Asn Asn Cys Ala Asn Ser Asp Arg Leu		
1010	1015	1020
Ile Lys His Thr Ser Phe Ser Ser Asp Val Lys Asp Leu Thr Lys Arg		
1025	1030	1035
Ile Arg Thr Val Leu Met Ala Thr Ala Gln Met Lys Glu His Glu Asn		
1045	1050	1055
Asp Pro Glu Met Leu Val Asp Leu Gln Tyr Ser Leu Ala Lys Ser Tyr		
1060	1065	1070
Ala Ser Thr Pro Glu Leu Arg Lys Thr Trp Leu Asp Ser Met Ala Arg		
1075	1080	1085
Ile His Val Lys Asn Gly Asp Leu Ser Glu Ala Ala Met Cys Tyr Val		
1090	1095	1100
His Val Thr Ala Leu Val Ala Glu Tyr Leu Thr Arg Lys Glu Ala Val		
1105	1110	1115
Gln Trp Glu Pro Pro Leu Leu Pro His Ser His Ser Ala Cys Leu Arg		
		1120

	1125	1130	1135
Arg Ser Arg Gly Gly Val Phe Arg Gln Gly Cys Thr Ala Phe Arg Val			
1140	1145	1150	
Ile Thr Pro Asn Ile Asp Glu Glu Ala Ser Met Met Glu Asp Val Gly			
1155	1160	1165	
Met Gln Asp Val His Phe Asn Glu Asp Val Leu Met Glu Leu Leu Glu			
1170	1175	1180	
Gln Cys Ala Asp Gly Leu Trp Lys Ala Glu Arg Tyr Glu Leu Ile Ala			
1185	1190	1195	1200
Asp Ile Tyr Lys Leu Ile Ile Pro Ile Tyr Glu Lys Arg Arg Asp Phe			
1205	1210	1215	
Glu Arg Leu Ala His Leu Tyr Asp Thr Leu His Arg Ala Tyr Ser Lys			
1220	1225	1230	
Val Thr Glu Val Met His Ser Gly Arg Arg Leu Leu Gly Thr Tyr Phe			
1235	1240	1245	
Arg Val Ala Phe Phe Gly Gln Ala Ala Gln Tyr Gln Phe Thr Asp Ser			
1250	1255	1260	
Glu Thr Asp Val Glu Gly Phe Phe Glu Asp Glu Asp Gly Lys Glu Tyr			
1265	1270	1275	1280
Ile Tyr Lys Glu Pro Lys Leu Thr Pro Leu Ser Glu Ile Ser Gln Arg			
1285	1290	1295	
Leu Leu Lys Leu Tyr Ser Asp Lys Phe Gly Ser Glu Asn Val Lys Met			
1300	1305	1310	
Ile Gln Asp Ser Gly Lys Val Asn Pro Lys Asp Leu Asp Ser Lys Tyr			
1315	1320	1325	
Ala Tyr Ile Gln Val Thr His Val Ile Pro Phe Phe Asp Glu Lys Glu			
1330	1335	1340	
Leu Gln Glu Arg Lys Thr Glu Phe Glu Arg Ser His Asn Ile Arg Arg			
1345	1350	1355	1360
Phe Met Phe Glu Met Pro Phe Thr Gln Thr Gly Lys Arg Gln Gly Gly			
1365	1370	1375	
Val Glu Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Ala Ile His Cys			
1380	1385	1390	
Phe Pro Tyr Val Lys Lys Arg Ile Pro Val Met Tyr Gln His His Thr			
1395	1400	1405	
Asp Leu Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val			
1410	1415	1420	
Ala Glu Leu Arg Gln Leu Cys Ser Ser Ala Glu Val Asp Met Ile Lys			
1425	1430	1435	1440
Leu Gln Leu Lys Leu Gln Gly Ser Val Ser Val Gln Val Asn Ala Gly			
1445	1450	1455	
Pro Leu Ala Tyr Ala Arg Ala Phe Leu Asp Asp Thr Asn Thr Lys Arg			
1460	1465	1470	
Tyr Pro Asp Asn Lys Val Lys Leu Leu Lys Glu Val Phe Arg Gln Phe			
1475	1480	1485	
Val Glu Ala Cys Gly Gln Ala Leu Ala Val Asn Glu Arg Leu Ile Lys			
1490	1495	1500	
Glu Asp Gln Leu Glu Tyr Gln Glu Glu Met Lys Ala Asn Tyr Arg Glu			
1505	1510	1515	1520
Met Ala Lys Glu Leu Ser Glu Ile Met His Glu Gln Ile Cys Pro Leu			
1525	1530	1535	
Glu Glu Lys Thr Ser Val Leu Pro Asn Ser Leu His Ile Phe Asn Ala			
1540	1545	1550	
Ile Ser Gly Thr Pro Thr Ser Thr Met Val His Gly Met Thr Ser Ser			

1555  
Ser Ser Val Val  
1570

1560

1565

<210> 159  
<211> 540  
<212> DNA  
<213> Homo sapiens

<400> 159  
gccggtctg ccatgtgctt actctgagcc acctaacctc ggcgtgcttc agtttactca  
60  
tccgctcatc tgcagaatgg gtgatgctgt cggctacttcg tggcatacag gaaagtgtccc  
120  
agcatgggtca gcctcagtga gaggtggcca gtggggagtg gtggccactg tacacctggc  
180  
acagcccaga gatgcatgtg ccaactctgtt gtgtgcttca accaaggggc gctctggcag  
240  
ggcttgggtg ggacttccca aagggcatgg aaaagttccc agtcaatgag atccatggag  
300  
acccatggga gtgggggtca gcccagcct aagaggacct ccagccctgc cctgtgcccc  
360  
aggacacacc aggcactgtc ccttgtegcc ttcccagaca acctgtacct tccaggccac  
420  
cagttctcgt ccatgacaaa gaaaggagcc ttctaaataa gtgcccgcca gaggtgcac  
480  
gcttcctgc cccttcggg tggacctggg tttcaaagag aagctgccag tgcaacgcgt  
540

<210> 160  
<211> 110  
<212> PRT  
<213> Homo sapiens

<400> 160  
Met Val Ser Leu Ser Glu Arg Trp Pro Val Gly Ser Gly Gly His Cys  
1 5 10 15  
Thr Pro Gly Thr Ala Gln Arg Cys Met Cys His Ser Val Val Cys Phe  
20 25 30  
Asn Gln Gly Ala Leu Trp Gln Gly Leu Gly Gly Thr Ser Gln Arg Ala  
35 40 45  
Trp Lys Ser Ser Gln Ser Met Arg Ser Met Glu Thr His Gly Ser Gly  
50 55 60  
Gly Gln Pro Gln Pro Lys Arg Thr Pro Ser Pro Ala Leu Cys Pro Arg  
65 70 75 80  
Thr His Gln Ala Leu Ser Leu Val Ala Phe Pro Asp Asn Leu Tyr Pro  
85 90 95  
Pro Gly His Gln Phe Ser Ser Met Thr Lys Lys Gly Ala Phe  
100 105 110

<210> 161  
<211> 351  
<212> DNA  
<213> Homo sapiens

&lt;400&gt; 161

nnacgcgtac gtctttcggc cgaagaagga acgtgggcag gggcctcctt cgctggccgc  
 60  
 cgcgcttggc tcgcagcgac gatgaagggc gacgacagca gcaagatcac ccacaagatc  
 120  
 gcccgggcga agcgcgaggg ccgcgtatgg tggagctttg agtacttccc gccgcgcacg  
 180  
 ccgcagggca tgcagaatct gtatgaccgt atcgagcgca tgagtcagct gggccccgag  
 240  
 tttgtggaca ttacgtggaa tgccgggggc cggacgtcgg atatgacgac gcagctggtc  
 300  
 aagacgggtgc atgcgtactt tgggtgctgag acgtgcatgc atctgacgtg c  
 351

&lt;210&gt; 162

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 162

Xaa Arg Val Arg Leu Ser Ala Glu Glu Gly Thr Trp Ala Gly Ala Ser  
 1 5 10 15  
 Phe Ala Gly Arg Arg Ala Trp Leu Ala Ala Thr Met Lys Gly Asp Asp  
 20 25 30  
 Ser Ser Lys Ile Thr His Lys Ile Ala Arg Ala Lys Arg Glu Gly Arg  
 35 40 45  
 Val Trp Trp Ser Phe Glu Tyr Phe Pro Pro Arg Thr Pro Gln Gly Met  
 50 55 60  
 Gln Asn Leu Tyr Asp Arg Ile Glu Arg Met Ser Gln Leu Gly Pro Glu  
 65 70 75 80  
 Phe Val Asp Ile Thr Trp Asn Ala Gly Gly Arg Thr Ser Asp Met Thr  
 85 90 95  
 Thr Gln Leu Val Lys Thr Val His Ala Tyr Phe Gly Val Glu Thr Cys  
 100 105 110  
 Met His Leu Thr Cys  
 115

&lt;210&gt; 163

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 163

gcgtgctcca tcggcacctt gcagatgggc gaattcgctg aaaacgtcgc cggtagcgctc  
 60  
 gacacctaca ccctgcgtca gcccatcggc gtatgcgcag gcatcactcc gttcaacttc  
 120  
 ccggcgatga ttccactgtg gatgttcccg atggcgattg cctgcggtaa cactttcgtg  
 180  
 ctcaaaccgt ccgaacaaga ccctctgtcg acgatgctgc tggtagaact ggcgctggaa  
 240  
 gccggtgtgc cggccggcgt gctcaacgtg gtgcacggcg gcaaggatgt ggtggatgcg  
 300

ctgtgcaccc ataaagatat caaggcagtt tctttcgtcg gttcgaccgc cgttggtacc  
360

<210> 164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 164

Ala	Cys	Ser	Ile	Gly	Thr	Leu	Gln	Met	Gly	Glu	Phe	Ala	Glu	Asn	Val
1				5					10					15	
Ala	Gly	Gly	Val	Asp	Thr	Tyr	Thr	Leu	Arg	Gln	Pro	Ile	Gly	Val	Cys
			20					25					30		
Ala	Gly	Ile	Thr	Pro	Phe	Asn	Phe	Pro	Ala	Met	Ile	Pro	Leu	Trp	Met
		35				40					45				
Phe	Pro	Met	Ala	Ile	Ala	Cys	Gly	Asn	Thr	Phe	Val	Leu	Lys	Pro	Ser
	50					55					60				
Glu	Gln	Asp	Pro	Leu	Ser	Thr	Met	Leu	Leu	Val	Glu	Leu	Ala	Leu	Glu
65					70					75				80	
Ala	Gly	Val	Pro	Ala	Gly	Val	Leu	Asn	Val	Val	His	Gly	Gly	Lys	Asp
				85					90					95	
Val	Val	Asp	Ala	Leu	Cys	Thr	His	Lys	Asp	Ile	Lys	Ala	Val	Ser	Phe
			100					105					110		
Val	Gly	Ser	Thr	Ala	Val	Gly	Thr								
		115				120									

<210> 165

<211> 728

<212> DNA

<213> Homo sapiens

<400> 165

gctagcagcc ttcaccctcc tagaggggca ggctcggcga caaggggcgg ggggtgccccg  
60  
tcccagcgag ggacgcccgg ggctgggggg gccggtcgag cccggggcaa cagcttcacc  
120  
aagtttgga accgcaacgt cttcatgaag gacaacagct cttcttcag cacagactcc  
180  
cgctcccget cctcctccag gtccccgacg cgccacttcc gcagaagtga ctcccactca  
240  
gactccgaca gctcctactc agggaatgag tgtcaccctg tgggcccag gaaccggccc  
300  
cctaagggcc ggggcggtcg aggggcccac atggatcggg gccgaggcag ggcgcagcgt  
360  
gggaagaggc acgatctggc gccaccaag cgagtcgaa agaagatggc ggcgctggag  
420  
tgtgaggacc cggagcgaga gctgaagaag cagaagcggg cagcccgtt ccagcacgga  
480  
cactcccgcc gctcgcct cgagcccctg gtgctgcaga tgagcagcct ggagagcagt  
540  
ggggctgacc ctgactggca ggagctgcag atcgtgggca cctgccctga catcaccaag  
600  
cactacctgc gctcacctg tgccccgac cgtccaccg tgcgcctgt ggcattccct  
660



gtggcaggtt ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaag agaagcagga  
 720  
 ctacgcgt  
 728

<210> 166

<211> 242

<212> PRT

<213> Homo sapiens

<400> 166

Ala	Ser	Ser	Leu	His	Pro	Pro	Arg	Gly	Ala	Gly	Ser	Ala	Thr	Arg	Gly
1				5					10					15	
Gly	Gly	Ala	Pro	Ser	Gln	Arg	Gly	Thr	Pro	Gly	Ala	Gly	Gly	Ala	Gly
			20					25					30		
Arg	Ala	Arg	Gly	Asn	Ser	Phe	Thr	Lys	Phe	Gly	Asn	Arg	Asn	Val	Phe
		35					40				45				
Met	Lys	Asp	Asn	Ser	Ser	Ser	Ser	Ser	Thr	Asp	Ser	Arg	Ser	Arg	Ser
	50					55				60					
Ser	Ser	Arg	Ser	Pro	Thr	Arg	His	Phe	Arg	Arg	Ser	Asp	Ser	His	Ser
65					70					75				80	
Asp	Ser	Asp	Ser	Ser	Tyr	Ser	Gly	Asn	Glu	Cys	His	Pro	Val	Gly	Arg
			85						90					95	
Arg	Asn	Pro	Pro	Pro	Lys	Gly	Arg	Gly	Gly	Arg	Gly	Ala	His	Met	Asp
		100						105					110		
Arg	Gly	Arg	Gly	Arg	Ala	Gln	Arg	Gly	Lys	Arg	His	Asp	Leu	Ala	Pro
	115						120					125			
Thr	Lys	Arg	Ser	Arg	Lys	Lys	Met	Ala	Ala	Leu	Glu	Cys	Glu	Asp	Pro
	130					135					140				
Glu	Arg	Glu	Leu	Lys	Lys	Gln	Lys	Arg	Ala	Ala	Arg	Phe	Gln	His	Gly
145					150					155				160	
His	Ser	Arg	Arg	Leu	Arg	Leu	Glu	Pro	Leu	Val	Leu	Gln	Met	Ser	Ser
			165					170					175		
Leu	Glu	Ser	Ser	Gly	Ala	Asp	Pro	Asp	Trp	Gln	Glu	Leu	Gln	Ile	Val
		180						185				190			
Gly	Thr	Cys	Pro	Asp	Ile	Thr	Lys	His	Tyr	Leu	Arg	Leu	Thr	Cys	Ala
	195						200					205			
Pro	Asp	Pro	Ser	Thr	Val	Arg	Pro	Val	Ala	Phe	Pro	Val	Ala	Gly	Phe
	210					215				220					
Glu	Lys	Val	Ala	Val	His	Gly	Gln	Val	Pro	Leu	Glu	Arg	Glu	Ala	Gly
225					230					235				240	
Leu	Arg														

<210> 167

<211> 510

<212> DNA

<213> Homo sapiens

<400> 167

nnacgcgtgg aaccagaact caggcccgtg tgaggagtct ggtttgaac acacggggcc  
 60  
 gcaacacaga attgtcaggt cctgtgccgt gaccaccacc cctcggggcca tgccaggtgc  
 120

tgggtgagggg caggtggctc ccgccaggcg cctgctggcc tgaccgcact ccgtccacag  
 180  
 gtccctcatgg gcgtccctccg gctgggcttc gtgtccgcct acctctcaca gccactgctc  
 240  
 gatggctttg ccatgggggc ctccgtgacc atcctgacct cgcagctcaa acacctgctg  
 300  
 ggcgtgcgga tcccgcggca ccaggggccc ggcattgttg tctcacatg gctgagcctg  
 360  
 ctgcgcggcg ccgggcaggc caacgtgtgc gacgtgggtca ccagcacggt gtgcttggcg  
 420  
 gtgctgctag ccgcgaagga gctctcagac cgctaccgac accgcctgag ggtgccgctg  
 480  
 cccacggagc tgctgggtcat cgtgggtggcc  
 510

&lt;210&gt; 168

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 168

Gly	Ala	Gly	Gly	Ser	Arg	Gln	Ala	Pro	Ala	Gly	Leu	Thr	Ala	Leu	Arg
1				5				10						15	
Pro	Gln	Val	Leu	Met	Gly	Val	Leu	Arg	Leu	Gly	Phe	Val	Ser	Ala	Tyr
		20					25						30		
Leu	Ser	Gln	Pro	Leu	Leu	Asp	Gly	Phe	Ala	Met	Gly	Ala	Ser	Val	Thr
		35					40					45			
Ile	Leu	Thr	Ser	Gln	Leu	Lys	His	Leu	Leu	Gly	Val	Arg	Ile	Pro	Arg
	50					55					60				
His	Gln	Gly	Pro	Gly	Met	Val	Val	Leu	Thr	Trp	Leu	Ser	Leu	Leu	Arg
65					70					75				80	
Gly	Ala	Gly	Gln	Ala	Asn	Val	Cys	Asp	Val	Val	Thr	Ser	Thr	Val	Cys
			85					90						95	
Leu	Ala	Val	Leu	Leu	Ala	Ala	Lys	Glu	Leu	Ser	Asp	Arg	Tyr	Arg	His
		100						105					110		
Arg	Leu	Arg	Val	Pro	Leu	Pro	Thr	Glu	Leu	Leu	Val	Ile	Val	Val	Ala
		115					120						125		

&lt;210&gt; 169

&lt;211&gt; 537

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 169

gaattccacc gcatgtcgtg tctggacgta ttaggtcgc gtagtgtgc gaccgccggt  
 60  
 gccttaaagg agagcgggca tcggcgttgc agtacgagag gggaagggtg gcggatactt  
 120  
 attgtcggtg cggcatcgtc catccacacc gttcgatggg tcaatggact ggtcaagcgg  
 180  
 ggtcacgagg ttcacctggc atcagtccat ccggcggggc gtcactccat tgatccccga  
 240  
 gttcggatcc acctggcccc acacggcggg aaggcaaaat acgtcgtcaa tgccggctgg  
 300

ctgcgatcag tggcggctgg ggtgcaacct gacatcgta acgtccacta tgcgaccggt  
 360  
 tatgggtctgc tcgctcgtct tgcccatatt gacgccccga cgctgctgtc ggtgtgggga  
 420  
 agtgacgttt acgattcccc cggggcaaatt cccctcatgc gtcacatggt ccgatccaac  
 480  
 ttgggtctcag ctactcggat cgcacgcaca agccactgca tggcgcgtgt caccgct  
 537

<210> 170

<211> 164

<212> PRT

<213> Homo sapiens

<400> 170

Cys	Ala	Thr	Ala	Gly	Ala	Leu	Lys	Glu	Ser	Gly	His	Arg	Arg	Cys	Ser
1				5					10					15	
Thr	Arg	Gly	Glu	Gly	Val	Arg	Ile	Leu	Ile	Val	Gly	Ala	Ala	Ser	Ser
		20						25					30		
Ile	His	Thr	Val	Arg	Trp	Val	Asn	Gly	Leu	Val	Lys	Arg	Gly	His	Glu
		35					40					45			
Val	His	Leu	Ala	Ser	Val	His	Pro	Ala	Gly	Arg	His	Ser	Ile	Asp	Pro
		50				55					60				
Arg	Val	Arg	Ile	His	Leu	Ala	Pro	His	Gly	Gly	Lys	Ala	Lys	Tyr	Val
65					70					75				80	
Val	Asn	Ala	Gly	Trp	Leu	Arg	Ser	Val	Ala	Ala	Gly	Val	Gln	Pro	Asp
			85					90					95		
Ile	Val	Asn	Val	His	Tyr	Ala	Thr	Gly	Tyr	Gly	Leu	Leu	Ala	Arg	Leu
			100					105					110		
Ala	His	Ile	Asp	Ala	Pro	Thr	Leu	Ser	Val	Trp	Gly	Ser	Asp	Val	
		115					120					125			
Tyr	Asp	Ser	Pro	Arg	Ala	Asn	Pro	Leu	Met	Arg	His	Met	Val	Arg	Ser
		130				135						140			
Asn	Leu	Val	Ser	Ala	Thr	Arg	Ile	Ala	Ser	Thr	Ser	His	Cys	Met	Ala
145						150				155				160	
Arg	Val	Thr	Arg												

<210> 171

<211> 391

<212> DNA

<213> Homo sapiens

<400> 171

ctagacaagc tcgcgcgggt gggcttcgac actcttggtc tacagacctt cctaactgcg  
 60  
 ggggagaagg agtccccgcg atggacgatt cacaagggcg acaccgcccc tgaggtgct  
 120  
 ggcgtcatcc ataccgactt ccagaagggg ttcacaaagg cccaggtggt gtccttcggc  
 180  
 gaccttggtg aatttgccgg cgaaaaggag gcccaggctg ctgggaagct gcggttgag  
 240  
 ggcaaggagt acgttatgca ggacggtgac gtagtggaat tccgatttaa cgtgtagctc  
 300

tggtttgata cttacttggc ttaaccgcat ctgagatccg tcatatcttt ggcgtagcct  
 360  
 tattggtatg aataacatgc cgtagccaaa g  
 391

<210> 172

<211> 98

<212> PRT

<213> Homo sapiens

<400> 172

Leu	Asp	Lys	Leu	Ala	Arg	Val	Gly	Phe	Asp	Thr	Leu	Gly	Leu	Gln	Thr
1			5					10					15		
Phe	Leu	Thr	Ala	Gly	Glu	Lys	Glu	Ser	Arg	Ala	Trp	Thr	Ile	His	Lys
	20						25				30				
Gly	Asp	Thr	Ala	Pro	Glu	Ala	Ala	Gly	Val	Ile	His	Thr	Asp	Phe	Gln
	35					40					45				
Lys	Gly	Phe	Ile	Lys	Ala	Gln	Val	Val	Ser	Phe	Gly	Asp	Leu	Val	Glu
	50				55				60						
Phe	Gly	Gly	Glu	Lys	Glu	Ala	Gln	Ala	Ala	Gly	Lys	Leu	Arg	Leu	Glu
65				70					75				80		
Gly	Lys	Glu	Tyr	Val	Met	Gln	Asp	Gly	Asp	Val	Val	Glu	Phe	Arg	Phe
			85					90					95		

Asn Val

<210> 173

<211> 309

<212> DNA

<213> Homo sapiens

<400> 173

ccatggagtg tcccttgtgc gagcattttg agagctatac caacacccat ccctgcaggt  
 60  
 cccagagccg agccatttct caggagagca ggaagggagc aggccgaggg gtgctcccag  
 120  
 ccagccccgg aacccgaggt ctggggacgc agccgaccag cctccttgt ctgggcctct  
 180  
 gtttcctctt cgacacaggg aagcagggag gggccgatca gcgacttagg cctgttggct  
 240  
 gtggtggggt cccctgcgtt tctgggaagc cacggaccct gggatgtacc tgggtttcat  
 300  
 tcgcagtga  
 309

<210> 174

<211> 102

<212> PRT

<213> Homo sapiens

<400> 174

Met	Glu	Cys	Pro	Leu	Cys	Glu	His	Phe	Glu	Ser	Tyr	Thr	Asn	Thr	His
.1			5					10				15			
Pro	Cys	Arg	Ser	Gln	Ser	Arg	Ala	Ile	Ser	Gln	Glu	Ser	Arg	Lys	Gly

```
<210> 175
<211> 8484
<212> DNA
<213> Homo sapiens
```

515

tccttgggga gccatactca tgtcggggca agcggcatat cttgggcac acctctatca  
1140  
gtgttttcac atactggaga atggttcctt ggagcaagct cttcacaatc tttagcagtt  
1200  
cctccatgac cacagcgatg ccctgataac ccaggagtct gcagatagtc ttgaaagtgt  
1260  
ggaggtccca cgaagtccg gtagctgccg taaatgctgg agtaggcca gttcaaagcc  
1320  
ttggatccat gcagatactg aggctgtgca ttaggctgct tatctctttg aaattcctga  
1380  
gaaaatggta aactgtccg aacaaaccgg ttggtagagc cgtttagca gtagttggg  
1440  
aggaagtcac agttgagctc ccagaagacg tgcagggtga tcctcccgta gggcgctgac  
1500  
acgttgggt tggcctccg gaacatggcg tcgaagccgt ccagcgtcag gtaccggctc  
1560  
agcagcttgt gggcatgcy gttgatttcc aacaggccat ccagctcaac tatggaggtc  
1620  
aaatcttcac tttcaaactg tccaatcgcc agttctaggg acttatacat ggctgctgag  
1680  
acgcgctggg tgatcagacg attgaggtct attgatctgc cgaggagctg cacatgcctc  
1740  
tgcttcagca gcgtctcgta gcggttagac ggcgggaggt ggatcgtagc tcctgatcc  
1800  
ttgcattctg atcgtaaccg tttatcaaga agcaaacttc ctgccataac cttataatag  
1860  
gcaaatactt ggtctgccag cttgtagaca aactgatcaa aacacagggt cacctcagct  
1920  
tctatctcat cgtacaggaa ctgcttttta aacttggtca gagcatagta ggcgctgtca  
1980  
ttgtacagat ccaggagta gagcacgtac tccatcatgg aagggtcttt ggtttccagg  
2040  
atatggtcg ttagaatcca gggcatcgac atctcaatgg ggaactggat cctcctgcc  
2100  
atggtcagct ccaggaagaa ctctcggaac cacagctgcg aaaggtcaca gactgctgc  
2160  
agcgtttcac tgaaatttat caagttagtg tagaagaatg actctcgatg aaagtctct  
2220  
atggcgagga caatgggtcc atccaggtg ctctcaggg tcttcttgga gccgcttttg  
2280  
tctgcaatga gtgattcaag catggttctc accatgtaca gctgtgtgct ggatggcccc  
2340  
acagcacgcc ggggcacctt gatatcaaat ccacctttgg ggtccttctc ccctctcaag  
2400  
catgggtcat tagggggctc tcgcccctcc tcccagtcac agatgggtct tcgaattgcc  
2460  
tgtaggacgc tgataggagc attcttcttc ttccgtaccg cctgcgcgag gggctcacgc  
2520  
agcgtcacct gggcgaagtc ctgcaatgcc gcgtagatgg tgttctgat ggcctgggtg  
2580  
aagacgtct ccatcctgcc catgagcacc tgcaggcctt tgatcatggc gatcacctca  
2640  
acgaaggcaa attttctctc actgggtgaa ttgtagcgtg tggctctctc atattctctc  
2700

gcggtgccag gacagtcctt gttgcagaac ttgtctgtgg gatgaaccag cttccaagag  
2760  
tacacctcca tgacgtgggc gctccacttg gatagaagct gcagaccccg cagggctagg  
2820  
tcgaagagct cgcgatactc ctcgtctgac ttctggctgt ccagccctga gcccgtcacc  
2880  
acctcactgt tgctgtagcg agcgagctcg gagatgaagc ggatgtggtc atcccggatc  
2940  
tgaaccatct gctcgagat attgtactgg gggctgatgc tgctctgggt gcacgtccat  
3000  
cgagatttat tttcctcgta gtggcgctg gtcttgatat atcttgccag ttctatttgc  
3060  
atgtccccaa atagtggaa cacctggagt tgcttgaagt acttgtegat ttgggataag  
3120  
tttattcttt tcttggcatc caacttatag atgttactga cactcccatc catcaggtac  
3180  
agaccaaata ccatgacttt gagaagcatg tgtttctcac tgggcgtcaa atacatcctg  
3240  
ttctcgtagt aatccacaca cagattcaca atatctgcca ggagctcttc gtagccagaa  
3300  
atcacttega gctgctgctg cagagactgt gtgatcttgt tatgattggc caggaacatg  
3360  
gacagattct gcgattcctg gatggactgt ggatctgcca ttttacgtaa aaactgtgct  
3420  
gccctcttgt aggcagagtg gtcgttcttg acgctgcaact tcatgttctt cagatcgtec  
3480  
agcacagcga acatgttgat gaatttgccc agtgtgatca ggtaggcttc tgacacgaag  
3540  
tccttctcgc gctcggcatg gcacagccgc ttcacctcgc tgcagaaccg ctcatggcc  
3600  
ttgcgctgaa aatacatgaa cttcatgagc ttggtgacct ccggtccag cacctctact  
3660  
gtcttctcat agatctctac tcggttgggc tgctcggtgc atttcacctg gggaaatggcc  
3720  
cggaacagc tgcgccaggt gtacagcatg accgcatact catgtccttc ctccagcatc  
3780  
tcattcatgc tggagtggac tgtagcctgc tcaatgtacc ttgcaatgcc cgtgacaaat  
3840  
gcattcctgt cctcaaagtt tgtgtcaaag ttagcctggt acatgatgga ggaagggtga  
3900  
ggctcgatgc atggctgctg gtcggggagg ggaagctctt caagcaggtc cacgttggac  
3960  
agggcatctt ccagggtgac gtgcgtggtc atggctgcag tttctgtatt ctgcaactggc  
4020  
tctgcggcgg gtccaggga ggggectgag gctaccgcag ggccccgcgc cggggcgag  
4080  
gatgctctgc cccgtccgc tgcgcgcga gtgcagaata cagaaactgc agccatgacc  
4140  
acgcacgtca cctggaaga tgccctgtcc aacgtggacc tgettgaaga gcttccctc  
4200  
cccgaccagc agccatgcat cgagcctcca cttcctcca tcatgtacca ggctaacttt  
4260  
gacacaaact ttgaggacag gaatgcattt gtcacgggca ttgcaaggta cattgagcag  
4320

gctacagtcc actccagcat gaatgagatg ctggaggaag gacatgagta tgcggtcatg  
4380  
ctgtacacct ggccagctg ctcccgggccc atcccacagg tgaaatgtaa cgagcagcct  
4440  
aacagagtgg aaatctacga gaaaaccgtg gaggttctgg agcctgaggt cacaaaactg  
4500  
atgaatttca tgtacttcca gagaaatgcc attgagcgtt tctgcgggga agtgaggcgc  
4560  
ctgtgccatg ccgagaggag gaaggacttc gtgtcagaag cctacctgat cacactgggc  
4620  
aaattcatca acatgttcgc tgtgtctggac gagctgaaga acatgaagtg cagtgtgaag  
4680  
aacgaccact cagcgtacaa gagggccgct cagtttttac gtaaaatggc agatccacag  
4740  
tccatccagg aatcgcagaa tctgtccatg ttcttgcca atcataacaa gatcacacag  
4800  
tctctgcagc agcagctcga agtgatttct ggctacgaag agctcctggc agatattgtg  
4860  
aatctgtgtg tggattacta cgagaacagg atgtatttga cgccagtgaa gaaacacatg  
4920  
cttctcaaag tcatgggatt tgggtctgtac ctgatggatg ggagtgtcag taacatctat  
4980  
aagttggatg ccaagaaaag aataaactta tccaaaatcg acaagtactt caagcaactc  
5040  
caggtgggtc cgctatttgg ggacatgcaa atagaactgg caagatatat caagaccagc  
5100  
gccactacg aggaaaataa atctcgatgg acgtgcacat cctccggcag cagccctcag  
5160  
tacaacatct gcgagcagat gatccagatc cgcgaggacc acatgcgctt catttcggag  
5220  
ctggcgcgct acagcaacag cgaggtggtc acgggctcgg gccgccagga ggcccagaag  
5280  
acggacgcgg agtaccgcaa gctcttcgac ctggcgcgtc agggcctgca gctgttgctg  
5340  
cagtggagcg cgcacgtgat ggaagtgtat tcttggaaag ttgtgcaccc caccgacaag  
5400  
tactccaaca aggactgccc cgacagcgtt gaagagtacg agcgtgccac gcgtacaac  
5460  
tacaccagcg aggagaagtt tgccttagtg gaggtgatcg ccatgatcaa aggcctgcag  
5520  
gtgctgatgg gcaggatgga gagcgtgttc aaccacgcca tccggcacac cgtctatgcc  
5580  
gcactgcagg acttctccca ggtgacctt agggagccgc tgcggcaggc catcaagaag  
5640  
aagaagaacg tcatccagag tgtcctgcag gccatcagga agaccgtgtg tgactgggag  
5700  
acggggcatg agcccttcaa tgaccagcc ttgcggggcg agaaggacc caagagcggc  
5760  
ttcgacataa aagtaccag ccgcgccgtg ggacctcca gcactcagct ttacatggtg  
5820  
agaaccatgc tagagtccct cattgcagac aaaagtgggt ccaagaaaac cttgagaagt  
5880  
agccttgagg ggcccaccat attggacata gaaaaatttc atcgagagtc attcttctac  
5940



actcacttga taaatttcag tgaaacgctg cagcagtgtc gtgaccttcc gcagctgtgg  
6000  
ttccgagagt tcttccctgga gctgaccatg ggcaggagga tccagttccc cattgagatg  
6060  
tcgatgccct ggatcctgac ggaccacatc ctggagacca aggaggcatc gatgatggag  
6120  
tacgtgtctc actccctgga cctgtacaat gacagcgccc actacgcgct caccaggttc  
6180  
aacaagcagt tctgtacga cgaaattgag gccgaggtga atctatgttt tgaccaattt  
6240  
gtttacaagc tagcagacca gatatttgcc tattataagg ttatggcagg aagtttgctt  
6300  
cttgataaac ggttacgatc agaatgcaag aatcagggag ccacgatcca cctcccgcg  
6360  
tctaaccgct acgagacgct gctgaagcag aggcatgtgc agctcctcgg cagatcaata  
6420  
gacctcaatc gtctgatcac ccagcgctc tcagcagcca tgtataagtc cctagaactg  
6480  
gcgattggac gatttgaaag tgaagatttg acctccatag ttgagctgga tggcctgttg  
6540  
gaaatcaacc gcatgacca caagctgctg agccgggtacc tgacgctgga cggttcgac  
6600  
gccatgttcc gggaggccaa ccacaacgtg tcagcgccct acgggaggat caccctgcac  
6660  
gtcttctggg agctcaacta tgacttctg cccaactact gctacaacgg ctctaccaac  
6720  
cggtttgctc ggacagtgtt accatcttct caggaatttc aaagagataa gcagccta  
6780  
gcacagcctc agtatctgca tggatccaag gctttgaact tggcctactc cagcatttac  
6840  
ggcagctacc ggaacttctg gggacctcca cactttcaag tcatctgccg gcttctcggc  
6900  
taccagggtg tcgccgtggt catggaggag ctgctgaagg tcgtcaagag cctgctgcaa  
6960  
ggcacaatcc tgagtacgt gaagacgctg atggaggtga tgcccaagat ctgccgcctg  
7020  
ccccggcagc agtacggctc tctgtgtatc ctggagttct tccaccacca gctgaaggac  
7080  
atcgtggagt acgcagagct gaagacggtg tgcttccaga acctgcggga ggtggggaac  
7140  
gccatcctct tctgctgct catcgagcag agcctgtctt tagaagaagt gtgtgacctg  
7200  
ctgcacgctg ctctttcca gaacatctg ccgcgagtc atgtgaaaga gggggagaga  
7260  
cttgatgcca aaatgaaaag actagaatca aagtacgcc cgctgcatct tgtccactg  
7320  
attgaaagac tggggacccc tcagcaaatt gccatcgcaa gagaggggga cctgctgaca  
7380  
aaggagcgcc tctgctgctg cctgtccatg tttgaggtca tctgacacg gatccggagc  
7440  
tttctggatg accccatctg gcgcgggct ctgccagca atggggtcat gcatgtggac  
7500  
gagtgtgtgg agtttcacag actgtggagt gccatgcagt ttgtctactg cattcccgtg  
7560

gggacacacg agttcacagt cgagcagtcg tttggtgatg ggctacactg ggctggctgt  
 7620  
 atgatcatcg tacttcttgg gcagcagcgg cgttttgctg tgctggattt ctgctaccat  
 7680  
 ctacttaaag tccagaaaca tgatggcaaa gatgagatta ttaaaaatgt gcctttgaag  
 7740  
 aagatgggtg agagaattcg caagttccag attctcaatg atgagatcat caccatcctg  
 7800  
 gataagtacc tgaagtcagg cgacggggag ggcacgccag tggagcatgt gcgctgcttc  
 7860  
 cagccgcccc tccaccagtc cctcgccagc agctgagggc acgcgctgca ctccgtaact  
 7920  
 caacatggca tgcctttctc tccgtaaact atttagtgag atttttaggg actatttttc  
 7980  
 agtatctctg tacctgttaa aggggggtgct tttcgatcta aaaacttaat ttataaaat  
 8040  
 tgacttattt ttctagacta aaattgtata tgcttttggg aattagggaac tcttgagaat  
 8100  
 attggctgct gattgttgc atcacgttcc tacaaaattg tttttctatg ggatgttctg  
 8160  
 gcagctgtgt cataaaatgc tgctgggttc attcattcat tccataagaa acttaatacc  
 8220  
 agcaaatgca ttaaatecct tgccagttac cattaactgt aactatttag cttttgttta  
 8280  
 gggatctttc tgatggtctt ttatgagcaa tcttagttct aagtcattgt tccatccct  
 8340  
 tttttgtgtg tttcagaaaa tagtgaactt gattccctg cttccactaa atccagtgt  
 8400  
 gacaaaatct aacgtgacat cagatcgaag gggtatagaa ataaaactaa tgagatctaa  
 8460  
 aaaaaaaaaa aaaaaaaaaa aaaa  
 8484

&lt;210&gt; 176

&lt;211&gt; 1393

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 176

Met	Ala	Arg	Glu	Gln	Leu	Arg	Gln	Val	Tyr	Ser	Met	Thr	Ala	Tyr	Ser
1				5				10						15	
Cys	Pro	Ser	Ser	Ser	Ile	Ser	Phe	Met	Leu	Glu	Trp	Thr	Val	Ala	Cys
		20					25						30		
Ser	Met	Tyr	Leu	Ala	Met	Pro	Val	Thr	Asn	Ala	Phe	Leu	Ser	Ser	Lys
		35				40					45				
Phe	Val	Ser	Lys	Leu	Ala	Trp	Tyr	Met	Met	Glu	Glu	Gly	Gly	Gly	Ser
	50					55				60					
Met	His	Gly	Cys	Trp	Ser	Gly	Arg	Gly	Ser	Ser	Ser	Ser	Arg	Ser	Thr
65					70				75					80	
Leu	Asp	Arg	Ala	Ser	Ser	Arg	Val	Thr	Cys	Val	Val	Met	Ala	Ala	Val
			85					90					95		
Ser	Val	Phe	Cys	Thr	Gly	Ser	Ala	Ala	Gly	Pro	Gly	Glu	Gly	Pro	Glu
			100				105						110		
Ala	Thr	Ala	Gly	Pro	Arg	Ala	Gly	Ala	Gln	Asp	Ala	Leu	Pro	Arg	Ser

115	120	125
Ala Ala Pro Pro Val Gln Asn Thr Glu Thr Ala Ala Met Thr Thr His		
130	135	140
Val Thr Leu Glu Asp Ala Leu Ser Asn Val Asp Leu Leu Glu Glu Leu		
145	150	155
Pro Leu Pro Asp Gln Gln Pro Cys Ile Glu Pro Pro Pro Ser Ser Ile		
165	170	175
Met Tyr Gln Ala Asn Phe Asp Thr Asn Phe Glu Asp Arg Asn Ala Phe		
180	185	190
Val Thr Gly Ile Ala Arg Tyr Ile Glu Gln Ala Thr Val His Ser Ser		
195	200	205
Met Asn Glu Met Leu Glu Glu Gly His Glu Tyr Ala Val Met Leu Tyr		
210	215	220
Thr Trp Arg Ser Cys Ser Arg Ala Ile Pro Gln Val Lys Cys Asn Glu		
225	230	235
Gln Pro Asn Arg Val Glu Ile Tyr Glu Lys Thr Val Glu Val Leu Glu		
245	250	255
Pro Glu Val Thr Lys Leu Met Asn Phe Met Tyr Phe Gln Arg Asn Ala		
260	265	270
Ile Glu Arg Phe Cys Gly Glu Val Arg Arg Leu Cys His Ala Glu Arg		
275	280	285
Arg Lys Asp Phe Val Ser Glu Ala Tyr Leu Ile Thr Leu Gly Lys Phe		
290	295	300
Ile Asn Met Phe Ala Val Leu Asp Glu Leu Lys Asn Met Lys Cys Ser		
305	310	315
Val Lys Asn Asp His Ser Ala Tyr Lys Arg Ala Ala Gln Phe Leu Arg		
325	330	335
Lys Met Ala Asp Pro Gln Ser Ile Gln Glu Ser Gln Asn Leu Ser Met		
340	345	350
Phe Leu Ala Asn His Asn Lys Ile Thr Gln Ser Leu Gln Gln Gln Leu		
355	360	365
Glu Val Ile Ser Gly Tyr Glu Glu Leu Leu Ala Asp Ile Val Asn Leu		
370	375	380
Cys Val Asp Tyr Tyr Glu Asn Arg Met Tyr Leu Thr Pro Ser Glu Lys		
385	390	395
His Met Leu Leu Lys Val Met Gly Phe Gly Leu Tyr Leu Met Asp Gly		
405	410	415
Ser Val Ser Asn Ile Tyr Lys Leu Asp Ala Lys Lys Arg Ile Asn Leu		
420	425	430
Ser Lys Ile Asp Lys Tyr Phe Lys Gln Leu Gln Val Val Pro Leu Phe		
435	440	445
Gly Asp Met Gln Ile Glu Leu Ala Arg Tyr Ile Lys Thr Ser Ala His		
450	455	460
Tyr Glu Glu Asn Lys Ser Arg Trp Thr Cys Thr Ser Ser Gly Ser Ser		
465	470	475
Pro Gln Tyr Asn Ile Cys Glu Gln Met Ile Gln Ile Arg Glu Asp His		
485	490	495
Met Arg Phe Ile Ser Glu Leu Ala Arg Tyr Ser Asn Ser Glu Val Val		
500	505	510
Thr Gly Ser Gly Arg Gln Glu Ala Gln Lys Thr Asp Ala Glu Tyr Arg		
515	520	525
Lys Leu Phe Asp Leu Ala Leu Gln Gly Leu Gln Leu Leu Ser Gln Trp		
530	535	540
Ser Ala His Val Met Glu Val Tyr Ser Trp Lys Leu Val His Pro Thr		

545					550					555				560	
Asp	Lys	Tyr	Ser	Asn	Lys	Asp	Cys	Pro	Asp	Ser	Ala	Glu	Glu	Tyr	Glu
				565					570					575	
Arg	Ala	Thr	Arg	Tyr	Asn	Tyr	Thr	Ser	Glu	Glu	Lys	Phe	Ala	Leu	Val
			580					585					590		
Glu	Val	Ile	Ala	Met	Ile	Lys	Gly	Leu	Gln	Val	Leu	Met	Gly	Arg	Met
	595					600				605					
Glu	Ser	Val	Phe	Asn	His	Ala	Ile	Arg	His	Thr	Val	Tyr	Ala	Ala	Leu
	610				615					620					
Gln	Asp	Phe	Ser	Gln	Val	Thr	Leu	Arg	Glu	Pro	Leu	Arg	Gln	Ala	Ile
625				630					635					640	
Lys	Lys	Lys	Lys	Asn	Val	Ile	Gln	Ser	Val	Leu	Gln	Ala	Ile	Arg	Lys
				645				650						655	
Thr	Val	Cys	Asp	Trp	Glu	Thr	Gly	His	Glu	Pro	Phe	Asn	Asp	Pro	Ala
	660						665						670		
Leu	Arg	Gly	Glu	Lys	Asp	Pro	Lys	Ser	Gly	Phe	Asp	Ile	Lys	Val	Pro
	675					680					685				
Arg	Arg	Ala	Val	Gly	Pro	Ser	Ser	Thr	Gln	Leu	Tyr	Met	Val	Arg	Thr
	690					695				700					
Met	Leu	Glu	Ser	Leu	Ile	Ala	Asp	Lys	Ser	Gly	Ser	Lys	Lys	Thr	Leu
705				710					715					720	
Arg	Ser	Ser	Leu	Glu	Gly	Pro	Thr	Ile	Leu	Asp	Ile	Glu	Lys	Phe	His
			725					730						735	
Arg	Glu	Ser	Phe	Phe	Tyr	Thr	His	Leu	Ile	Asn	Phe	Ser	Glu	Thr	Leu
	740						745						750		
Gln	Gln	Cys	Asp	Leu	Ser	Gln	Leu	Trp	Phe	Arg	Glu	Phe	Phe	Leu	
	755					760					765				
Glu	Leu	Thr	Met	Gly	Arg	Arg	Ile	Gln	Phe	Pro	Ile	Glu	Met	Ser	Met
	770					775					780				
Pro	Trp	Ile	Leu	Thr	Asp	His	Ile	Leu	Glu	Thr	Lys	Glu	Ala	Ser	Met
785				790					795					800	
Met	Glu	Tyr	Val	Leu	Tyr	Ser	Leu	Asp	Leu	Tyr	Asn	Asp	Ser	Ala	His
			805					810						815	
Tyr	Ala	Leu	Thr	Arg	Phe	Asn	Lys	Gln	Phe	Leu	Tyr	Asp	Glu	Ile	Glu
		820					825						830		
Ala	Glu	Val	Asn	Leu	Cys	Phe	Asp	Gln	Phe	Val	Tyr	Lys	Leu	Ala	Asp
	835					840					845				
Gln	Ile	Phe	Ala	Tyr	Tyr	Lys	Val	Met	Ala	Gly	Ser	Leu	Leu	Leu	Asp
	850					855					860				
Lys	Arg	Leu	Arg	Ser	Glu	Cys	Lys	Asn	Gln	Gly	Ala	Thr	Ile	His	Leu
865				870					875					880	
Pro	Pro	Ser	Asn	Arg	Tyr	Glu	Thr	Leu	Leu	Lys	Gln	Arg	His	Val	Gln
			885					890						895	
Leu	Leu	Gly	Arg	Ser	Ile	Asp	Leu	Asn	Arg	Leu	Ile	Thr	Gln	Arg	Val
		900					905						910		
Ser	Ala	Ala	Met	Tyr	Lys	Ser	Leu	Glu	Leu	Ala	Ile	Gly	Arg	Phe	Glu
	915					920						925			
Ser	Glu	Asp	Leu	Thr	Ser	Ile	Val	Glu	Leu	Asp	Gly	Leu	Leu	Glu	Ile
	930					935					940				
Asn	Arg	Met	Thr	His	Lys	Leu	Leu	Ser	Arg	Tyr	Leu	Thr	Leu	Asp	Gly
945				950					955					960	
Phe	Asp	Ala	Met	Phe	Arg	Glu	Ala	Asn	His	Asn	Val	Ser	Ala	Pro	Tyr
			965					970						975	
Gly	Arg	Ile	Thr	Leu	His	Val	Phe	Trp	Glu	Leu	Asn	Tyr	Asp	Phe	Leu

980 985 990  
 Pro Asn Tyr Cys Tyr Asn Gly Ser Thr Asn Arg Phe Val Arg Thr Val  
 995 1000 1005  
 Leu Pro Phe Ser Gln Glu Phe Gln Arg Asp Lys Gln Pro Asn Ala Gln  
 1010 1015 1020  
 Pro Gln Tyr Leu His Gly Ser Lys Ala Leu Asn Leu Ala Tyr Ser Ser  
 1025 1030 1035 1040  
 Ile Tyr Gly Ser Tyr Arg Asn Phe Val Gly Pro Pro His Phe Gln Val  
 1045 1050 1055  
 Ile Cys Arg Leu Leu Gly Tyr Gln Gly Ile Ala Val Val Met Glu Glu  
 1060 1065 1070  
 Leu Leu Lys Val Val Lys Ser Leu Leu Gln Gly Thr Ile Leu Gln Tyr  
 1075 1080 1085  
 Val Lys Thr Leu Met Glu Val Met Pro Lys Ile Cys Arg Leu Pro Arg  
 1090 1095 1100  
 His Glu Tyr Gly Ser Pro Gly Ile Leu Glu Phe Phe His His Gln Leu  
 1105 1110 1115 1120  
 Lys Asp Ile Val Glu Tyr Ala Glu Leu Lys Thr Val Cys Phe Gln Asn  
 1125 1130 1135  
 Leu Arg Glu Val Gly Asn Ala Ile Leu Phe Cys Leu Leu Ile Glu Gln  
 1140 1145 1150  
 Ser Leu Ser Leu Glu Glu Val Cys Asp Leu Leu His Ala Ala Pro Phe  
 1155 1160 1165  
 Gln Asn Ile Leu Pro Arg Val His Val Lys Glu Gly Glu Arg Leu Asp  
 1170 1175 1180  
 Ala Lys Met Lys Arg Leu Glu Ser Lys Tyr Ala Pro Leu His Leu Val  
 1185 1190 1195 1200  
 Pro Leu Ile Glu Arg Leu Gly Thr Pro Gln Gln Ile Ala Ile Ala Arg  
 1205 1210 1215  
 Glu Gly Asp Leu Leu Thr Lys Glu Arg Leu Cys Cys Gly Leu Ser Met  
 1220 1225 1230  
 Phe Glu Val Ile Leu Thr Arg Ile Arg Ser Phe Leu Asp Asp Pro Ile  
 1235 1240 1245  
 Trp Arg Gly Pro Leu Pro Ser Asn Gly Val Met His Val Asp Glu Cys  
 1250 1255 1260  
 Val Glu Phe His Arg Leu Trp Ser Ala Met Gln Phe Val Tyr Cys Ile  
 1265 1270 1275 1280  
 Pro Val Gly Thr His Glu Phe Thr Val Glu Gln Cys Phe Gly Asp Gly  
 1285 1290 1295  
 Leu His Trp Ala Gly Cys Met Ile Ile Val Leu Leu Gly Gln Gln Arg  
 1300 1305 1310  
 Arg Phe Ala Val Leu Asp Phe Cys Tyr His Leu Leu Lys Val Gln Lys  
 1315 1320 1325  
 His Asp Gly Lys Asp Glu Ile Ile Lys Asn Val Pro Leu Lys Lys Met  
 1330 1335 1340  
 Val Glu Arg Ile Arg Lys Phe Gln Ile Leu Asn Asp Glu Ile Ile Thr  
 1345 1350 1355 1360  
 Ile Leu Asp Lys Tyr Leu Lys Ser Gly Asp Gly Glu Gly Thr Pro Val  
 1365 1370 1375  
 Glu His Val Arg Cys Phe Gln Pro Pro Ile His Gln Ser Leu Ala Ser  
 1380 1385 1390  
 Ser

<210> 177  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 177  
 acgcgtgatg tcacactgcc tctgccgtg ggtcctaatt cgattgcacg caccatgget  
 60  
 gcagttcgtg gcgcgcatag tttctggcat gcttcgcgca tcctggagac cgatcccgcc  
 120  
 gctgccgtga aaccgcctaa aaatgtgaag cgattgccca aagccgtgtc cgtggagcaa  
 180  
 atgcaaaagc tccttgccat acccagtctt aagactccta ccggcctgcg taatcgagcg  
 240  
 atacttgagt tcttatatgc taccggcgcg cgcgtgagcg agatgctggc aacagacctg  
 300  
 gacgatatac acctggggcg aaaaccccgcg gatgaaaacg gggaatctat tgcacttccc  
 360  
 gggatatgtg gcctttttgg aaaggaggt aaagagcgtt tagtcctttt gggatcc  
 417

<210> 178  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 178  
 Thr Arg Asp Val Thr Leu Pro Leu Pro Leu Gly Pro Asn Ser Ile Ala  
 1 5 10 15  
 Arg Thr Met Ala Ala Val Arg Gly Ala His Ser Phe Trp His Ala Ser  
 20 25 30  
 Arg Ile Leu Glu Thr Asp Pro Ala Ala Val Lys Pro Pro Lys Asn  
 35 40 45  
 Val Lys Arg Leu Pro Lys Ala Val Ser Val Glu Gln Met Gln Lys Leu  
 50 55 60  
 Leu Ala Ile Pro Ser Leu Lys Thr Pro Thr Gly Leu Arg Asn Arg Ala  
 65 70 75 80  
 Ile Leu Glu Phe Leu Tyr Ala Thr Gly Ala Arg Val Ser Glu Met Leu  
 85 90 95  
 Ala Thr Asp Leu Asp Asp Ile His Leu Gly Glu Lys Pro Arg Asp Glu  
 100 105 110  
 Asn Gly Glu Ser Ile Ala Leu Pro Gly Tyr Val Arg Leu Phe Gly Lys  
 115 120 125  
 Gly Gly Lys Glu Arg Leu Val Pro Leu Gly Ser  
 130 135

<210> 179  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

<400> 179  
 acgcgtcgaa ggtgccggtg ggggcgatca ataacatcgc gcaatccctg gaagagcctc  
 60

aggtgattgc ccgtgggttg atggtggaag atcccgcatc cccaagaatc cgggaattcg  
 120  
 ccattgggcc gggcagcccg aatccaaaat gtcggggcac gccagtgagg agtatggtaa  
 180  
 ggggccggca ccgatgttgg nggcagcata cggatggaag tgctgggcga gcgcctgggt  
 240  
 ttgccggcag agcaactggg gcagctcaag gcgggcgggg tgatcgagca gttggattga  
 300  
 gcaatggcgg ccgcgaagcc cgccatttac cttgatgact gtttagcgcg cggattcttt  
 360  
 aa  
 362

<210> 180  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 180  
 Met Ala Gly Phe Ala Ala Ala Ile Ala Gln Ser Asn Cys Ser Ile Thr  
 1 5 10 15  
 Pro Pro Ala Leu Ser Cys Pro Ser Cys Ser Ala Gly Lys Pro Arg Arg  
 20 25 30  
 Ser Pro Ser Thr Ser Ile Arg Met Leu Pro Pro Thr Ser Val Pro Ala  
 35 40 45  
 Pro Tyr His Thr Pro Thr Gly Arg Ala Pro Thr Phe Trp Ile Arg Ala  
 50 55 60  
 Ala Arg Pro Asn Gly Glu Phe Pro Asp Ser Trp Gly Cys Gly Ile Phe  
 65 70 75 80  
 His His Gln Pro Thr Gly Asn His Leu Arg Leu Phe Gln Gly Leu Arg  
 85 90 95  
 Asp Val Ile Asp Arg Pro His Arg His Leu Arg Arg  
 100 105

<210> 181  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 181  
 gcgttgatca tgtccgaccc aggcttgatc atgctgttac gccgtcactt cccgtgcatg  
 60  
 ccgattcact tgtcgttaca ggccaatacg gtgaattggg ccagcgtcga gttctggcaa  
 120  
 cagcaaggta tctgccgggt aatcctgtcg cgggaattgt cactggaaga aatcggcgaa  
 180  
 atccgccaac aggtgccggc catggagctg gaagtgtttg tgcacgggtgc cctgtacatg  
 240  
 gcctattccg ggcgctgttt gttgtccggc tatatgaaca agcgcgatgc caaccaa  
 297

<210> 182  
 <211> 99  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 182

Ala Leu Ile Met Ser Asp Pro Gly Leu Ile Met Leu Val Arg Arg His  
 1 5 10 15  
 Phe Pro Cys Met Pro Ile His Leu Ser Val Gln Ala Asn Thr Val Asn  
 20 25 30  
 Trp Ala Ser Val Glu Phe Trp Gln Gln Gly Ile Cys Arg Val Ile  
 35 40 45  
 Leu Ser Arg Glu Leu Ser Leu Glu Glu Ile Gly Glu Ile Arg Gln Gln  
 50 55 60  
 Val Pro Ala Met Glu Leu Glu Val Phe Val His Gly Ala Leu Tyr Met  
 65 70 75 80  
 Ala Tyr Ser Gly Arg Cys Leu Leu Ser Gly Tyr Met Asn Lys Arg Asp  
 85 90 95  
 Ala Asn Gln

&lt;210&gt; 183

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 183

cgggacgtca ccatgaagcc gaccggctcg ggggatgtgg cgaacaaggt catcacccat  
 60  
 attccgttta acatcgtctc ccaggcgact catccattcc ttcgtacctt ggacgatgtc  
 120  
 aagcgcatct ctttggcgac cgacgggctc ggccaccagg tctgtctcaa gggtaccag  
 180  
 gccgagggcc acgactacgc acaccccgac tacggcgagg acgtctccca ccgtgccggc  
 240  
 gggatgaagg atctcgagaa gctcaccgag tcgggcaggc agtgaacac cgatttcggc  
 300  
 attcacgtca acctggtgga gtcctatcct gaggcgaatc atttcggcga c  
 351

&lt;210&gt; 184

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 184

Arg Asp Val Thr Met Lys Pro Thr Gly Ser Gly Asp Val Ala Asn Lys  
 1 5 10 15  
 Val Ile Thr His Ile Pro Phe Asn Ile Val Ser Gln Ala Thr His Pro  
 20 25 30  
 Phe Leu Arg Thr Leu Asp Asp Val Lys Arg Ile Ser Leu Ala Thr Asp  
 35 40 45  
 Gly Leu Gly His Gln Val Leu Leu Lys Gly Tyr Gln Ala Glu Gly His  
 50 55 60  
 Asp Tyr Ala His Pro Asp Tyr Gly Gly Asn Val Ser His Arg Ala Gly  
 65 70 75 80  
 Gly Met Lys Asp Leu Glu Lys Leu Thr Glu Ser Gly Arg Gln Trp Asn



85 90 95  
 Thr Asp Phe Gly Ile His Val Asn Leu Val Glu Ser Tyr Pro Glu Ala  
 100 105 110  
 Asn His Phe Gly Asp  
 115

<210> 185  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 185  
 cgcgtgggtc tcagtaaaga aaattgttg cttagaggat gcaccattag aaacacagag  
 60  
 gctgttgttg gcattgtggt ttatgcaggc catgaaacca aagcaatgct gaacaacagt  
 120  
 gggccacggt ataagcgcag caaattagaa agaagagcaa acacagatgt cctctgggtg  
 180  
 gtcattgcttc tggtcataat gtgcttaact ggcgcagtag gtcattggaat ctggctgagc  
 240  
 aggtatgaaa agatgcattt tttcaatggt cccgagcctg atggacatat catatcacca  
 300  
 ctgttggcag gattttatat gttttggacc gtgatcattt tgttacaggt cttgattcct  
 360  
 atttctctct atgtttccat cgaaattgtg aagctt  
 396

<210> 186  
 <211> 132  
 <212> PRT  
 <213> Homo sapiens

<400> 186  
 Arg Val Gly Leu Ser Lys Glu Asn Leu Leu Arg Gly Cys Thr Ile  
 1 5 10 15  
 Arg Asn Thr Glu Ala Val Val Gly Ile Val Val Tyr Ala Gly His Glu  
 20 25 30  
 Thr Lys Ala Met Leu Asn Asn Ser Gly Pro Arg Tyr Lys Arg Ser Lys  
 35 40 45  
 Leu Glu Arg Arg Ala Asn Thr Asp Val Leu Trp Cys Val Met Leu Leu  
 50 55 60  
 Val Ile Met Cys Leu Thr Gly Ala Val Gly His Gly Ile Trp Leu Ser  
 65 70 75 80  
 Arg Tyr Glu Lys Met His Phe Phe Asn Val Pro Glu Pro Asp Gly His  
 85 90 95  
 Ile Ile Ser Pro Leu Leu Ala Gly Phe Tyr Met Phe Trp Thr Val Ile  
 100 105 110  
 Ile Leu Leu Gln Val Leu Ile Pro Ile Ser Leu Tyr Val Ser Ile Glu  
 115 120 125  
 Ile Val Lys Leu  
 130

<210> 187  
 <211> 423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 187

cgagtgtctca ccgcgtcagc cgtcatgcgt ccactgagg ctgttgcttc tcggtcggca  
 60  
 gaacctcgac gagttcagcg gacactggac cagcgcgagt gggctggcgt cttegttgtc  
 120  
 gatgagcatc gtcgtttgct tggcacggtc ggcgatcaag aggtcatcga ggctgctcgc  
 180  
 cgcgagatc gcagtattgc tgacgcggtg gaaactaacg gcacccacac ggcgcggacc  
 240  
 gacactccgt tgtccgagct cttegttcgc accagcaacg ccagggtgcc gttggccggt  
 300  
 gtcgacgagg acttccacct catgggtgct atctctcggg tgaccctgct cgacgcgatg  
 360  
 tcacgagctc gcgacgaggc aggagaggga tctgtcatgt ccttgagaaa caccggaaag  
 420  
 ctt  
 423

&lt;210&gt; 188

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 188

Arg	Val	Leu	Thr	Ala	Ser	Ala	Val	Met	Arg	Pro	Thr	Glu	Ala	Val	Val
1				5					10					15	
Ser	Arg	Ser	Ala	Glu	Pro	Arg	Arg	Val	Gln	Arg	Ile	Leu	Asp	Gln	Arg
		20					25					30			
Glu	Trp	Ala	Gly	Val	Phe	Val	Val	Asp	Glu	His	Arg	Arg	Leu	Leu	Gly
		35				40					45				
Thr	Val	Gly	Asp	Gln	Glu	Val	Ile	Glu	Ala	Ala	Arg	Arg	Gly	Asp	Arg
	50				55				60						
Ser	Ile	Ala	Asp	Ala	Val	Glu	Thr	Asn	Gly	Ile	Leu	Thr	Ala	Arg	Thr
65				70				75			80				
Asp	Thr	Pro	Leu	Ser	Glu	Leu	Phe	Ala	Pro	Thr	Ser	Asn	Ala	Arg	Val
			85					90				95			
Pro	Leu	Ala	Val	Val	Asp	Glu	Asp	Phe	His	Leu	Met	Gly	Val	Ile	Ser
		100					105					110			
Arg	Val	Thr	Leu	Leu	Asp	Ala	Met	Ser	Arg	Ala	Arg	Asp	Glu	Ala	Gly
	115					120					125				
Glu	Gly	Ser	Val	Met	Ser	Leu	Glu	Asn	Thr	Gly	Lys	Leu			
	130					135				140					

&lt;210&gt; 189

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 189

ngatgggttta ccaacatatg cacgggttcga gcggcaatag ctctcgggg gctggcagtg  
 60

aaatgtttga agatgccggc gtttcgggcc tcaacttggt tcgatgccgt ggttccaccg  
 120  
 atttcgccga tgcggctcat cgcacgggta agaagtttcg tccagataac ccaggacaga  
 180  
 gcaaggtata tcaggctcag aaccaggaaa agcagggctt taccctcagt ccccatatag  
 240  
 accgcgctag ctacggcaaa aggcgcgccc agtgggggtcc aggacagcac tttcatggct  
 300  
 gaagggagcg catcccnagc ttgcctagc cccagagcta acccagcgac cagtggacca  
 360  
 gcgcccata tcagtaggaa ccctacgata atcagccctt gttttacccc tggaatggag  
 420  
 ctgatttcn  
 429

<210> 190

<211> 123

<212> PRT

<213> Homo sapiens

<400> 190

Met	Met	Gly	Ala	Gly	Pro	Leu	Val	Ala	Gly	Leu	Ala	Leu	Gly	Leu	Gly
1			5					10					15		
Glu	Ala	Xaa	Asp	Ala	Leu	Pro	Ser	Ala	Met	Lys	Val	Leu	Ser	Trp	Thr
		20					25					30			
Pro	Leu	Gly	Ala	Pro	Phe	Ala	Val	Ala	Ser	Ala	Val	Tyr	Met	Gly	His
		35				40						45			
Trp	Gly	Lys	Ala	Leu	Leu	Phe	Leu	Val	Leu	Ser	Leu	Ile	Tyr	Leu	Ala
		50				55					60				
Leu	Ser	Trp	Val	Ile	Trp	Thr	Lys	Leu	Leu	Asn	Arg	Ala	Met	Ser	Arg
65				70						75				80	
Ile	Gly	Glu	Ile	Gly	Gly	Thr	Thr	Ala	Ser	Lys	Gln	Val	Glu	Ala	Gly
			85						90					95	
Asn	Ala	Gly	Ile	Phe	Lys	His	Phe	Thr	Ala	Ser	Pro	Arg	Gly	Ala	Ile
		100						105					110		
Ala	Ala	Arg	Thr	Val	His	Met	Leu	Val	Asn	His					
		115					120								

<210> 191

<211> 4845

<212> DNA

<213> Homo sapiens

<400> 191

ccgcccgggg ccatggcgac actcagcttc gtcttctctg tcgtgggggc agtgtctctg  
 60  
 cctccggctt ctgcctccgg ccaggagttc tggcccgagc aatcgggcgc cgatattctg  
 120  
 tcgggggagg cttcccgagc acggtatctt ctgtatgacg tcaaccccc ggaaggcttc  
 180  
 aacctgcgca gggatgtcta tatccgaatc gcctctctcc tgaagactct gctgaagacg  
 240  
 gaggagtggg tgcttgctct gcctccatgg ggccgctct atcactggca gagtctgac  
 300

atccaccagg tccggattcc ctggtctgag ttttttgatc ttccaagtct caataaaaac  
360  
atccccgtca tcgagtatga gcagttcatc gcagaatctg gtgggccctt tattgaccag  
420  
gtttacgtcc tgcaaagtta cgcagagggg tggaaagaag ggacctggga agagaagggtg  
480  
gacgagcggc cgtgtattga tcagctcctg tactcccagg acaagcacga gtactacaga  
540  
ggatgggtttt ggggttatga ggagaccagg ggtctaaacg tctcctgtct gtccgtccag  
600  
ggctcagcct ccacgtggc gccctgctg ctgagaaaca catcagcccgt gtccgtgatg  
660  
ttagacagag ccgagaacct acttcacgac cactatggag ggaaagaata ctgggatacc  
720  
cgtcgcagca tgggtgttgc caggcacctg cgggaggtgg gagacgagtt caggagcaga  
780  
catctcaact ccacggacga cgcagacagg atccccctcc aggaggactg gatgaagatg  
840  
aagggtcaagc tgggctccgc gctagggggc ccctacctgg gagtccacct gagaagaaaa  
900  
gatttcatct ggggtcacag acaggatgta cccagtctgg aaggggccgt gaggaagatc  
960  
cgcagcctca tgaagacca ccggctggac aagggtgttg tggccacaga tgccgtcaga  
1020  
aaggaatatg aagagctaaa aaagctgtta cccgagatgg tgaggtttga acccacgtgg  
1080  
gaggagctgg agctctacaa ggacggaggc gttgcgatta ttgaccagtg gatctgcgca  
1140  
cacgccaggt gcctgccac gtcactgtcg gccgagagcg ggtcgggtgg ctttcaaagg  
1200  
ttctttctgc ccaagtactc ggtgtcagag cagatggtcg cctgtgttca cagtggatc  
1260  
ttccatactg ttgcctcct cgtctgagtc tcctgtagca tctggttcag tgtttccctg  
1320  
ggctgaagtt aattgttcat cttgcccctt tagttctcat gcacagaatt cctccatagc  
1380  
aggctgttgg catagctggc ctgctctcag aacctcttct tgtgtcgcat tttcccatca  
1440  
ttcccggttt ctgcccctgt ctgcccctg ccctgagagt tgcccgtgcc ctggacttgg  
1500  
gcatgtcctt gttgctgtgt tgttgagcat ccgtgagcgt ccccgaggcc gggagcgtgg  
1560  
gccctcgtgt gatcattctc gtggggctgc catgagcgtc cccaaggctg ggagcatggg  
1620  
ccctcgtgtg atcgttcttg tggggctgcc gtgagcgtcc ccgaggccgg gagcgtgggc  
1680  
cctcgtgtga tcattctcgt ggggctgccg tgagcgtccc agaggccggg agcgtgggcc  
1740  
ctgctgagc tcattctctt ggggttctg tgggaggtac gcctgggcct ctgttctctc  
1800  
aaagacctgc ctgcccctc gcataggaga tgaaggctgg ggttaggggtg aaacggtttg  
1860  
agttaaatgg aaaatgaaag tagaggggaat gatcttccc gtggtttagca ctgtgcacac  
1920

gcgtgcgtct ctgtgggtta gtctgtctct ctctgccc aggaatgctg agcgccctga  
1980  
gccggtgcct cttcacacat ctgctatttc ctgtggtgtt ctgggcatgg tgtataagac  
2040  
ccacagaggg tccgggtgat gctgtctgct ggggtgtgggt ccctttccct gttaagcaga  
2100  
caggatgcag cgctgacttc ttaggtcagg gcggaggtgt gcaggagccc agtcacgagc  
2160  
tcacccctgc ttctcagggtg tggccttggg attttgactg cgacctgggc ggtgctgtct  
2220  
ccgcagccca ggaagcctgc tgtggggagg cttegcactg agctctcagc ctctgcct  
2280  
cagctgcgcg aagcgctcgg ccagctcac tgaagctgcc ctgcctcgg gccggcgcg  
2340  
cctgctctgg caggccctg tgtgtgggt ggtgagggtc tccccaccag tgtgcaccc  
2400  
cgcagcagca tacaggcctg tgtggcctgc tggccctgtg gctctgtgta cagcgctgtg  
2460  
catgttacat ttgctctgga aacatctctg gggtttgctt gttcacgaag ttcataag  
2520  
gccgctggag agccagagac cagctgcgca ggagccggag gaacgggcag gccgctgacc  
2580  
tgaggtctgg agaaaccct ggagaagggt gtccccacca gccatacag cgtgtgtgtg  
2640  
gagggggcct tgacctcgt gatgtctact gtgcctcagg ataaggacc gccatgcct  
2700  
ggctagacag tgtgtggtta gtaggaatct ctcatgttc accatgtgac cccaggagg  
2760  
tattcgacct gactggcgt gcctggcctg ggatttggtg acggagagga gggctcccag  
2820  
ggggacatgc ggtgggacag gacggtggcg gctgctgact gtgggggtgtg gatggggctg  
2880  
cagcaccagg cagagccct cagggcgccg atgtcgaggg cacctgagcg aggggtgcca  
2940  
gcaagggggc ggccggctgg tgggtgctcg ggggacggcc gtgttggtc catgtaactg  
3000  
tggaactcat ttcactcagc tgctctctc agttctccct gactctggaa cctctgtgac  
3060  
cccagttctc cctgactctg gaacctctgt gatccttgc aggtttttt attggcacct  
3120  
cagtctcaac attttctttt cggattcatg aggaaagaga aatcctgggg ttggaccca  
3180  
agacgacgta caacagggtc tgcggagacc aagagaaggc gtgtgagcaa cccaccact  
3240  
ggaagatcac ctactgagga ggatectcca gggccgctcc ccggaccga caggcgcg  
3300  
tggtatgcagg ttctgtcgcc gtggagtcac cgtctactgc cagccgggag ctggcgcg  
3360  
aggaccgtcc ctgcagggt ccaggccca gaagaggccc cagcctcta gagctgggt  
3420  
ccgtccctcg cgttgccagc cgccatggct gatgaagagg ctccgctgct ctggggggc  
3480  
gcggttgtt tcaggcagcg tctgtgaacc cacagctcgg ttgccagcag tgcccgcgtg  
3540

gtgaccaga agcaggagt tttgtcagc tcccgtctg gcctttccag ccacctttca  
 3600  
 tgtcttcata ttttaagtgc attgaggata gatgcaggcg ggtgagctgc cctccgtcag  
 3660  
 gtggacccgg gctgacattt ccctgggagc tgggtcaagg agaagcgtca ttttaaagt  
 3720  
 ctgcagagcg accagggggc tcatgaatct ctccgttgcc ctccgcgcag caggaggctg  
 3780  
 cctgtgtgtt tcctcctggg acgcgtgcaa ggcagacctg gtgctgcaaa ggaaagggc  
 3840  
 tgaggcctca gggagccccg tggagggatg acagttcagg ccctactgct ggcacgtcag  
 3900  
 agcactggga agtttttcag tgacgtctct ggggcactca gtggattgtc ttaggaaac  
 3960  
 ttgcagctct gtcctcaca ccaggccccg ctggccaccc accctcgccc cactggcca  
 4020  
 cccctccctc gccccgactg ccccgcccca cctcaccctc gactgccccg ccctcgcccc  
 4080  
 gctggccgct cctgccctcg ccccggtgag cagggtgcaca tggggcctcc aggtctgcca  
 4140  
 ttcgctattg agaactagaa atgaggaagg acagttacgc taactccaaa aggtgtctca  
 4200  
 ggatgagctg ctttatcagg gagctccttg taccattttt acagaaatca ttttaggtc  
 4260  
 tttgtgccac caccacgagg ggcattctga aagagggcaa cgctagacac agaattcgtg  
 4320  
 gaaggtgcag cagtgcctca ggggtcctca gggtcaggga gccccctca ccctcttggc  
 4380  
 ccgttaccct ttgtgacttt ccaccatggt gtcgtgtgac cctcagtcag gttggtggg  
 4440  
 gctgagtcct cactgagcag ccactttcca catctgctag aggaacagt acatggacac  
 4500  
 ctgtgacaga gagaggacag ttagtgagga gggacagaca gctcttcctt tcggagcctg  
 4560  
 gctagtctag gacatcacct tgctgtgtct tctcaagctt ttaaaattga ccctgaacgt  
 4620 cctatggtgt tactcaaagc tgtgcagggt aatgatgac atatttattc 4680  
 tttttccatt tgtctagaa acagtgcctt tttcatcagt tgcattttcc aggtgagag  
 4740  
 ctgtataaaa cattttggac tgtgaccatg taccttcctt ttttaagaaaa ataaactgct  
 4800  
 ttatggaagt tggtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4845

&lt;210&gt; 192

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 192

Pro Pro Gly Ala Met Ala Thr Leu Ser Phe Val Phe Leu Leu Leu Gly  
 1 5 10 15  
 Ala Val Ser Trp Pro Pro Ala Ser Ala Ser Gly Gln Glu Phe Trp Pro  
 20 25 30  
 Gly Gln Ser Ala Ala Asp Ile Leu Ser Gly Ala Ala Ser Arg Arg Arg

35 40 45  
 Tyr Leu Leu Tyr Asp Val Asn Pro Pro Glu Gly Phe Asn Leu Arg Arg  
 50 55 60  
 Asp Val Tyr Ile Arg Ile Ala Ser Leu Leu Lys Thr Leu Leu Lys Thr  
 65 70 75 80  
 Glu Glu Trp Val Leu Val Leu Pro Pro Trp Gly Arg Leu Tyr His Trp  
 85 90 95  
 Gln Ser Pro Asp Ile His Gln Val Arg Ile Pro Trp Ser Glu Phe Phe  
 100 105 110  
 Asp Leu Pro Ser Leu Asn Lys Asn Ile Pro Val Ile Glu Tyr Glu Gln  
 115 120 125  
 Phe Ile Ala Glu Ser Gly Gly Pro Phe Ile Asp Gln Val Tyr Val Leu  
 130 135 140  
 Gln Ser Tyr Ala Glu Gly Trp Lys Glu Gly Thr Trp Glu Glu Lys Val  
 145 150 155 160  
 Asp Glu Arg Pro Cys Ile Asp Gln Leu Leu Tyr Ser Gln Asp Lys His  
 165 170 175  
 Glu Tyr Tyr Arg Gly Trp Phe Trp Gly Tyr Glu Glu Thr Arg Gly Leu  
 180 185 190  
 Asn Val Ser Cys Leu Ser Val Gln Gly Ser Ala Ser Ile Val Ala Pro  
 195 200 205  
 Leu Leu Leu Arg Asn Thr Ser Ala Arg Ser Val Met Leu Asp Arg Ala  
 210 215 220  
 Glu Asn Leu Leu His Asp His Tyr Gly Gly Lys Glu Tyr Trp Asp Thr  
 225 230 235 240  
 Arg Arg Ser Met Val Phe Ala Arg His Leu Arg Glu Val Gly Asp Glu  
 245 250 255  
 Phe Arg Ser Arg His Leu Asn Ser Thr Asp Asp Ala Asp Arg Ile Pro  
 260 265 270  
 Phe Gln Glu Asp Trp Met Lys Met Lys Val Lys Leu Gly Ser Ala Leu  
 275 280 285  
 Gly Gly Pro Tyr Leu Gly Val His Leu Arg Arg Lys Asp Phe Ile Trp  
 290 295 300  
 Gly His Arg Gln Asp Val Pro Ser Leu Glu Gly Ala Val Arg Lys Ile  
 305 310 315 320  
 Arg Ser Leu Met Lys Thr His Arg Leu Asp Lys Val Phe Val Ala Thr  
 325 330 335  
 Asp Ala Val Arg Lys Glu Tyr Glu Glu Leu Lys Lys Leu Leu Pro Glu  
 340 345 350  
 Met Val Arg Phe Glu Pro Thr Trp Glu Glu Leu Glu Leu Tyr Lys Asp  
 355 360 365  
 Gly Gly Val Ala Ile Ile Asp Gln Trp Ile Cys Ala His Ala Arg Cys  
 370 375 380  
 Leu Pro Thr Ser Leu Ser Ala Glu Ser Gly Ser Gly Gly Phe Gln Arg  
 385 390 395 400  
 Phe Phe Cys Pro Lys Tyr Ser Val Ser Glu Gln Met Val Ala Cys Val  
 405 410 415  
 His Ser Gly His Phe His Thr Val Cys Leu Leu Val  
 420 425

&lt;210&gt; 193

&lt;211&gt; 350

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 193

gcccggcagc tggactgcgc catcatggcc gagcccttcc ccgacaccgg cctggccacg  
 60  
 gcgcagctgt acgacgagcc ctctgctcgc gcgctgcggg cgctgcaccc gctggccgac  
 120  
 cgtgccagca tcagccccga ggaggtcaag ggcgagacca tgttgatgtt gggcacgggc  
 180  
 ccctggtttc cccgggcccg cgggtgggggt ttggcccga tttggcgcgt ttctccagcg  
 240  
 ccgttaaggg catacgccgc agtttcgagg gctcgtcgtt ggagaccatc aagcacatcg  
 300  
 tggcttcggg catggcgtga cgggtggtgcc gcagctgtcc gtgccgcgcg  
 350

&lt;210&gt; 194

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 194

Ala	Gly	Glu	Leu	Asp	Cys	Ala	Ile	Met	Ala	Glu	Pro	Phe	Pro	Asp	Thr
1			5					10						15	
Gly	Leu	Ala	Thr	Ala	Gln	Leu	Tyr	Asp	Glu	Pro	Phe	Val	Val	Ala	Leu
			20					25					30		
Arg	Ala	Ser	His	Pro	Leu	Ala	Asp	Arg	Ala	Ser	Ile	Ser	Pro	Glu	Glu
		35					40					45			
Val	Lys	Gly	Glu	Thr	Met	Leu	Met	Leu	Gly	Thr	Gly	Pro	Trp	Phe	Pro
	50				55					60					
Arg	Ala	Arg	Gly	Gly	Gly	Leu	Ala	Arg	Ile	Trp	Arg	Val	Ser	Pro	Ala
65					70				75					80	
Pro	Leu	Arg	Ala	Tyr	Ala	Ala	Val	Ser	Arg	Ala	Arg	Arg	Trp	Arg	Pro
			85					90					95		
Ser	Ser	Thr	Ser	Trp	Leu	Arg	Ala	Trp	Arg	Asp	Gly	Gly	Ala	Ala	Ala
			100					105					110		
Val	Arg	Ala	Ala												
			115												

&lt;210&gt; 195

&lt;211&gt; 495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 195

acgcgtgaac gcgacggctt ggcgatcgga ggcgtcggcc ccgtcgttga gtgggccgtt  
 60  
 gaaatggttc gcttcgacga aagcgagact ctcgaccgcc ttgcatcggg cgtccttgaa  
 120  
 ccagaacttg gcgacgattt ggccgcgcgc ctgctcgatt ctcacgggtt tgctgtcaco  
 180  
 agcgagggat cgaactggct tgccctcgta cccgtgatcg taggtcgcaa cacggaacag  
 240  
 tttcgagca taccagacct tgcccgcgac cggatcgaca aactgcacca gttgagccat  
 300



cgcgaaatag cacgaaatcg cgagctcctg cgtgcccgcg ctgcgtcggg gcaggtgcgg  
 360  
 cactgccacg ggcagcaca cctcggaac atcgatcatga ttgacggcaa gccggtcctg  
 420  
 ttcgacgcga tcgaatttga tcctgatata gcgacaacgg atgtgctgta cgatttcgcg  
 480  
 ttccctctga tggat  
 495

<210> 196  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

<400> 196  
 Thr Arg Glu Arg Asp Gly Leu Ala Ile Gly Gly Val Gly Pro Val Val  
 1 5 10 15  
 Glu Trp Ala Val Glu Met Val Arg Phe Asp Glu Ser Glu Thr Leu Asp  
 20 25 30  
 Arg Leu Ala Ser Gly Val Leu Glu Pro Glu Leu Gly Asp Asp Leu Ala  
 35 40 45  
 Ala Val Leu Leu Asp Ser His Arg Val Ala Val Ile Ser Glu Gly Ser  
 50 55 60  
 Asn Trp Leu Ala Ser Leu Pro Val Ile Val Gly Arg Asn Thr Glu Gln  
 65 70 75 80  
 Phe Arg Ser Ile Pro Asp Leu Ala Arg Asp Arg Ile Asp Lys Leu His  
 85 90 95  
 Gln Leu Ser His Arg Glu Ile Ala Arg Asn Arg Glu Leu Leu Arg Ala  
 100 105 110  
 Arg Ala Ala Ser Gly Gln Val Arg His Cys His Gly Asp Ala His Leu  
 115 120 125  
 Gly Asn Ile Val Met Ile Asp Gly Lys Pro Val Leu Phe Asp Ala Ile  
 130 135 140  
 Glu Phe Asp Pro Asp Ile Ala Thr Thr Asp Val Leu Tyr Asp Phe Ala  
 145 150 155 160  
 Phe Pro Leu Met Asp  
 165

<210> 197  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 197  
 caagcaatgc ttgacgcagt tgttgaatac ttaccagcac cgactgatata tccagcaatc  
 60  
 aaaggatatca atccagatga aactgaagggt gaacgtcacg caagcgatga tgagccattc  
 120  
 tcttcatttag cattcaaaat tgcaactgac ccattcgtag gtaacttaac cttcttcctg  
 180  
 gtgtactcag gtgtaattaa ctctggtgat acagtattaa actctgtacg tcaaaaacgt  
 240  
 gaacgttttg gtcgtatcgt acagatgcac gctaataaac gtgaagaaat taaagaagtt  
 300

cgtgcgggcg atatcgctgc agcaatcggc ttaaaagatg taactacggg tgaaccatta  
 360  
 tgtgctgtcg atgcaccaat cattcttgag cgtatggaat tc  
 402

<210> 198

<211> 134

<212> PRT

<213> Homo sapiens

<400> 198

Gln Ala Met Leu Asp Ala Val Val Glu Tyr Leu Pro Ala Pro Thr Asp  
 1 5 10 15  
 Ile Pro Ala Ile Lys Gly Ile Asn Pro Asp Glu Thr Glu Gly Glu Arg  
 20 25 30  
 His Ala Ser Asp Asp Glu Pro Phe Ser Ser Leu Ala Phe Lys Ile Ala  
 35 40 45  
 Thr Asp Pro Phe Val Gly Asn Leu Thr Phe Phe Arg Val Tyr Ser Gly  
 50 55 60  
 Val Ile Asn Ser Gly Asp Thr Val Leu Asn Ser Val Arg Gln Lys Arg  
 65 70 75 80  
 Glu Arg Phe Gly Arg Ile Val Gln Met His Ala Asn Lys Arg Glu Glu  
 85 90 95  
 Ile Lys Glu Val Arg Ala Gly Asp Ile Ala Ala Ala Ile Gly Leu Lys  
 100 105 110  
 Asp Val Thr Thr Gly Glu Pro Leu Cys Ala Val Asp Ala Pro Ile Ile  
 115 120 125  
 Leu Glu Arg Met Glu Phe  
 130

<210> 199

<211> 507

<212> DNA

<213> Homo sapiens

<400> 199

acgcgtgaag tcgtgcatag atcgggtgtga catagagaag cctccgaccc aagctgcgta  
 60  
 tatcgacaaa agaccaagcg accctggacg ttctagacag aactctgcta cgaggcctga  
 120  
 caatagtga atccccgaga acccagctat ggaagggttt ccagatgctc gaaggcctgt  
 180  
 cataccagag gttagggtta actgtatgga gactttcgag gtgaaagttg actcgccggt  
 240  
 aaagcctgct cctaaagagg atttagatct gatagatcta tcctcagatt caacctcggg  
 300  
 gctgaaaaaa cactctatac tctcaacctc cgacagcgac tctcttgtat ttgagcctct  
 360  
 tccctctctc agaatagtcg agagtgcga agaagaggag acgatgaacc aaggcgatga  
 420  
 cggccctccc ggtaaaaatg ctgcctcttc tccctccatc cccagccatc cctccgtcct  
 480  
 cagcctgagc acagctccgc ttgtaca  
 507

<210> 200  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 200  
 Met Glu Gly Glu Glu Ala Ala Phe Leu Pro Glu Gly Pro Ser Ser Pro  
 1 5 10 15  
 Trp Phe Ile Val Ser Ser Ser Ser Ser Leu Ser Thr Ile Leu Arg Glu  
 20 25 30  
 Gly Arg Gly Ser Asn Thr Arg Glu Ser Leu Ser Glu Val Glu Ser Ile  
 35 40 45  
 Glu Cys Phe Ser Gly Pro Glu Val Glu Ser Glu Asp Arg Ser Ile Arg  
 50 55 60  
 Ser Lys Ser Ser Leu Gly Ala Gly Phe Thr Gly Glu Ser Thr Phe Thr  
 65 70 75 80  
 Ser Lys Val Ser Ile Gln Phe Asn Leu Thr Ser Gly Met Thr Gly Leu  
 85 90 95  
 Arg Ala Ser Gly Asn Pro Ser Ile Ala Gly Phe Ser Gly Ile Ser Leu  
 100 105 110  
 Leu Ser Gly Leu Val Ala Glu Phe Cys Leu Glu Arg Pro Gly Ser Leu  
 115 120 125  
 Gly Leu Cys Ala Ile Tyr Ala Ala Trp Val Gly Gly Phe Ser Met Ser  
 130 135 140  
 His Arg Ser Met His Asp Phe Thr Arg  
 145 150

<210> 201  
 <211> 527  
 <212> DNA  
 <213> Homo sapiens

<400> 201  
 gatgtggcta ttatccctgt ttcccagggt agaaacaggg tcagtgatag agctgggatg  
 60  
 tgtgacctgca ggctcaccag ccagtcacct cctcaccaag gatgatgttc tccgtgggtga  
 120  
 gctggctcctt ggtctctggt aactcgtggc gcacctgggc cagctgcgcc tcgaaggcat  
 180  
 ccttctccat ctctttggct agctgcaagt tctggagctg ctcgttgagg tctgtgatct  
 240  
 catccacctg ctggttgagc gtgcgcttga ggaaggccac aatctccttc ttgttattgg  
 300  
 ccagctgctc aaactcctgg cggaacatct tctcctgcac agccagctca tcccacttcc  
 360  
 gctggtaccg ggctagccgg tcttccaggt ctcgatctg gatgtggtag aactccttca  
 420  
 tctccttggc cagaggcggc tccacggcca ccaccgctc cttcttgccc cttttcttct  
 480  
 tgacttcaag ctcttgcct gccttgcct cactcttttt gggaggc  
 527

<210> 202

<211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 202  
 Gly Arg Pro Gln Ser Pro Ser Cys Tyr Trp Pro Ala Ala Gln Thr Pro  
 1 5 10 15  
 Gly Gly Thr Ser Ser Pro Ala Gln Pro Ala His Pro Thr Ser Ala Gly  
 20 25 30  
 Thr Gly Leu Ala Gly Pro Pro Gly Leu Gly Ser Gly Cys Gly Arg Thr  
 35 40 45  
 Pro Ser Ser Pro Trp Pro Glu Ala Ala Pro Arg Pro Pro Pro Ala Pro  
 50 55 60  
 Ser Cys Pro Leu Ser Ser  
 65 70

<210> 203  
 <211> 304  
 <212> DNA  
 <213> Homo sapiens

<400> 203  
 ngtgcaccgg tgggtcatgga caacgccgcc tacgtgggtct acacctcggg atccaccggc  
 60  
 cgacccaagg gagttgtcgt caccacacacc ggactcgaca gcttcgcact cgaccagcag  
 120  
 cgtcgattcc acgcagatca ccactctcga accctgcact tcgccacccc cagcttcgac  
 180  
 ggagccgtct tcgagtacct gcaggcattc ggtgtcggag ccaccatggt gatcgteccg  
 240  
 accgacatct acggcgggcgc cgaactggca agtctcatcc gccgcgaaca cgtcactcac  
 300  
 gcgt  
 304

<210> 204  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 204  
 Xaa Ala Pro Val Val Met Asp Asn Ala Ala Tyr Val Val Tyr Thr Ser  
 1 5 10 15  
 Gly Ser Thr Gly Arg Pro Lys Gly Val Val Thr His Thr Gly Leu  
 20 25 30  
 Asp Ser Phe Ala Leu Asp Gln Gln Arg Arg Phe His Ala Asp His His  
 35 40 45  
 Ser Arg Thr Leu His Phe Ala Thr Pro Ser Phe Asp Gly Ala Val Phe  
 50 55 60  
 Glu Tyr Leu Gln Ala Phe Gly Val Gly Ala Thr Met Val Ile Val Pro  
 65 70 75 80  
 Thr Asp Ile Tyr Gly Gly Ala Glu Leu Ala Ser Leu Ile Arg Arg Glu  
 85 90 95  
 His Val Thr His Ala

100

<210> 205  
 <211> 356  
 <212> DNA  
 <213> Homo sapiens

<400> 205  
 nngaattcag caatgataac tggctcaatt gaaggtaaga caacaattga gggaattaat  
 60  
 gcacaattaa atacagtgtt aactttatctt tcaccacaat caaaagataa agatttaatc  
 120  
 atgccagatc aacaagaaga aatagatatt ctgattgcaa ccgactgtat ttcagaagga  
 180  
 cagaacttac aagattgtga ttacttaata aactatgaca ttcattggaa tccagttcgt  
 240  
 atcattcaaa gatttggacg gattgatcga attggttcga agaataaatg tgtacaatta  
 300  
 gttaactttt ggccagatat tacattagat gaatatattg atctaaaggg acgcgt  
 356

<210> 206  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 206  
 Xaa Asn Ser Ala Met Ile Thr Gly Ser Ile Glu Gly Lys Thr Thr Ile  
 1 5 10 15  
 Glu Gly Ile Asn Ala Gln Leu Asn Thr Val Leu Thr Leu Phe Ser Pro  
 20 25 30  
 Gln Ser Lys Asp Lys Asp Leu Ile Met Pro Asp Gln Gln Glu Glu Ile  
 35 40 45  
 Asp Ile Leu Ile Ala Thr Asp Cys Ile Ser Glu Gly Gln Asn Leu Gln  
 50 55 60  
 Asp Cys Asp Tyr Leu Ile Asn Tyr Asp Ile His Trp Asn Pro Val Arg  
 65 70 75 80  
 Ile Ile Gln Arg Phe Gly Arg Ile Asp Arg Ile Gly Ser Lys Asn Lys  
 85 90 95  
 Cys Val Gln Leu Val Asn Phe Trp Pro Asp Ile Thr Leu Asp Glu Tyr  
 100 105 110  
 Ile Asp Leu Lys Gly Arg  
 115

<210> 207  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 catggtgtgt gcacgtgtng cactgtgtgt ggatgcatgg taatgtgcac gtgtgcactg  
 120

tgtgtggtgt gtatgcatgg tgtgtgcacg tgtgcactgt gtgtgtgtgt atgcatgtgt  
 180  
 gtgcacatgt gcactgtgtg gtgtgtatgc atggtgtgtg cacgtgtgca ctgtgtatgc  
 240  
 atgngtgtgt gcatgtgtgc actgtgtatg catagtgtgc acgtgtgcac tgtgtggtgt  
 300  
 gtatgcatgg taatgtgcac gtgt  
 324

<210> 208

<211> 108

<212> PRT

<213> Homo sapiens

<400> 208

Thr	Arg	Ala	Leu	Cys	Val	Cys	Met	Val	Thr	Tyr	Thr	Cys	Ala	Leu	Cys
1				5					10					15	
Val	Val	Cys	Met	His	Gly	Val	Cys	Thr	Cys	Xaa	Thr	Val	Cys	Gly	Cys
			20					25					30		
Met	Val	Met	Cys	Thr	Cys	Ala	Leu	Cys	Val	Val	Cys	Met	His	Gly	Val
			35				40					45			
Cys	Thr	Cys	Ala	Leu	Cys	Val	Cys	Val	Cys	Met	Cys	Val	His	Met	Cys
	50				55				60						
Thr	Val	Trp	Cys	Val	Cys	Met	Val	Cys	Ala	Arg	Val	His	Cys	Val	Cys
65				70					75					80	
Met	Xaa	Val	Cys	Met	Cys	Ala	Leu	Cys	Met	His	Ser	Val	His	Val	Cys
			85					90					95		
Thr	Val	Trp	Cys	Val	Cys	Met	Val	Met	Cys	Thr	Cys				
			100					105							

<210> 209

<211> 168

<212> DNA

<213> Homo sapiens

<400> 209

nnctccagag gttatgaggt tggaagcccg gtttttttca ggtgcagaaa aggctaccat  
 60  
 attcaagggt ccacgactcg cacctgcctt gccaatTTaa catggagtgg gatacagacc  
 120  
 gaatgtatac ctcatgcctg cagacagcca gaaaccccg caccgcg  
 168

<210> 210

<211> 56

<212> PRT

<213> Homo sapiens

<400> 210

Xaa	Ser	Arg	Gly	Tyr	Glu	Val	Gly	Ser	Pro	Val	Phe	Phe	Arg	Cys	Arg
1				5				10					15		
Lys	Gly	Tyr	His	Ile	Gln	Gly	Ser	Thr	Thr	Arg	Thr	Cys	Leu	Ala	Asn
			20				25					30			
Leu	Thr	Trp	Ser	Gly	Ile	Gln	Thr	Glu	Cys	Ile	Pro	His	Ala	Cys	Arg

35 40 45  
 Gln Pro Glu Thr Pro Ala His Ala  
 50 55

<210> 211  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 211  
 tacatgggct ttgacacagt ggtggctgaa gctgcactaa ggtgtgttgaggaggcaatgtc  
 60  
 cagctggcag ctcagaccct tgcacaccat ggaggaagcc tcccaccga cctgcagttc  
 120  
 tcaggagagg actcctcccc cacaccgtcc acatccccat ctgactctgc agggacctct  
 180  
 agtgccctga cagatgaaga catggagacg gaggtgtca acgaaatcct ggaggacatt  
 240  
 ccggagcacg aggaggacta cctggactcc acgtggagg atgaagaagt cattattgct  
 300  
 gaatacttgt cctgcgttga aagtataagt tctgccngca aagaacaact gatc  
 354

<210> 212  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 212  
 Tyr Met Gly Phe Asp Thr Val Val Ala Glu Ala Ala Leu Arg Val Phe  
 1 5 10 15  
 Gly Gly Asn Val Gln Leu Ala Ala Gln Thr Leu Ala His His Gly Gly  
 20 25 30  
 Ser Leu Pro Pro Asp Leu Gln Phe Ser Gly Glu Asp Ser Ser Pro Thr  
 35 40 45  
 Pro Ser Thr Ser Pro Ser Asp Ser Ala Gly Thr Ser Ser Ala Ser Thr  
 50 55 60  
 Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu Ile Leu Glu Asp Ile  
 65 70 75 80  
 Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr Leu Glu Asp Glu Glu  
 85 90 95  
 Val Ile Ile Ala Glu Tyr Leu Ser Cys Val Glu Ser Ile Ser Ser Ala  
 100 105 110  
 Xaa Lys Glu Gln Leu Ile  
 115

<210> 213  
 <211> 669  
 <212> DNA  
 <213> Homo sapiens

<400> 213  
 attgcccaat ctcagagtgt ccaggaaagc ctggagagcc tgttgcagtc tattggggaa  
 60

gttgaacaaa acctggaagg gaaacaggtg tcatcactct catcaggagt catccaggaa  
 120  
 gccttagcca caaatatgaa attgaagcag gacattgctc ggcaaaagag cagcttggag  
 180  
 gccacccgtg agatgggtgac ccgattcatg gagacagcag acagtactac agcagcagtg  
 240  
 ctgcagggca aactggcaga ggtgagccag cggttcgaac agctctgtct acagcagcaa  
 300  
 gaaaaggaga gtcacctaaa gaagcttcta cccagggcag agatgtttga acacctctct  
 360  
 ggtaagctgc agcagttcat ggaaaacaaa agtcggatgc tggcctctgg aaatcagcca  
 420  
 gatcaagata ttacacattt ctccaacag atccaggagc tcaatttga aatggaagac  
 480  
 caacaggaga acctagatac tcttgagcac ctggtcactg aactgagctc ttgtggcttt  
 540  
 gcgctggact tgtgccagca tcaggacagg gtacagaatc taagaaaaga cttcacagag  
 600  
 ctacagaaga cagttaaaga gagagagaaa gatgcatcat cttgccagga acagttggat  
 660  
 gaattccgg  
 669

&lt;210&gt; 214

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 214

Ile	Ala	Gln	Ser	Gln	Ser	Val	Gln	Glu	Ser	Leu	Glu	Ser	Leu	Leu	Gln
1				5				10						15	
Ser	Ile	Gly	Glu	Val	Glu	Gln	Asn	Leu	Glu	Gly	Lys	Gln	Val	Ser	Ser
		20					25					30			
Leu	Ser	Ser	Gly	Val	Ile	Gln	Glu	Ala	Leu	Ala	Thr	Asn	Met	Lys	Leu
	35					40					45				
Lys	Gln	Asp	Ile	Ala	Arg	Gln	Lys	Ser	Ser	Leu	Glu	Ala	Thr	Arg	Glu
50					55					60					
Met	Val	Thr	Arg	Phe	Met	Glu	Thr	Ala	Asp	Ser	Thr	Thr	Ala	Ala	Val
65				70				75						80	
Leu	Gln	Gly	Lys	Leu	Ala	Glu	Val	Ser	Gln	Arg	Phe	Glu	Gln	Leu	Cys
			85					90					95		
Leu	Gln	Gln	Gln	Glu	Lys	Glu	Ser	Ser	Leu	Lys	Lys	Leu	Leu	Pro	Gln
	100						105					110			
Ala	Glu	Met	Phe	Glu	His	Leu	Ser	Gly	Lys	Leu	Gln	Gln	Phe	Met	Glu
	115					120					125				
Asn	Lys	Ser	Arg	Met	Leu	Ala	Ser	Gly	Asn	Gln	Pro	Asp	Gln	Asp	Ile
130					135					140					
Thr	His	Phe	Phe	Gln	Gln	Ile	Gln	Glu	Leu	Asn	Leu	Glu	Met	Glu	Asp
145				150				155						160	
Gln	Gln	Glu	Asn	Leu	Asp	Thr	Leu	Glu	His	Leu	Val	Thr	Glu	Leu	Ser
			165				170						175		
Ser	Cys	Gly	Phe	Ala	Leu	Asp	Leu	Cys	Gln	His	Gln	Asp	Arg	Val	Gln
	180					185					190				
Asn	Leu	Arg	Lys	Asp	Phe	Thr	Glu	Leu	Gln	Lys	Thr	Val	Lys	Glu	Arg



195 200 205  
 Glu Lys Asp Ala Ser Ser Cys Gln Glu Gln Leu Asp Glu Phe Arg  
 210 215 220

<210> 215  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

<400> 215  
 aaatttcgta cccgctccgg cacagtacga gcccttgacg atgtgagcct ggctattaag  
 60  
 agagggttcca tctcagccgt tatcgggcac tccggagccg gcaaateccac cctgggttcgc  
 120  
 ctcatcaacg gattagagac tcccacgcgt ggccgcgtct tggtagacgg caccgacgtc  
 180  
 tcgcagctct cggacaaaagc gatgcgcccg ctacgcgcag acatcgggat gatcttccaa  
 240  
 cagttcaacc tattcggttc aaggaccatc tacgacaacg ttgcctatcc actcaagctg  
 300  
 gctcattgga agaaagcaga cgagaagaag cgcgtcaccg aattgctgag cttcgtcggg  
 360  
 ttgacgagca aagcctggga ccatccagac cagctctcgg gcggacagaa acagcgggtt  
 420  
 ggtattgccc gagcgctagc aactaaacca tcgattttgt tggctgacga gtccacctcg  
 480  
 gcgctggatc cagaaacgac agctgatgtc ctatccctgc tcaagcgggt caatgcggaa  
 540  
 ctagggttga cggtcgtcgt catcacccac gagatggagg tcgtccgctc gattgccag  
 600  
 caggtctcgg tactagcagc tggccatctc gtcgagtctg gaagcgcccg ccaggtcttc  
 660  
 gtcctccac agtcagagac caccacgcgt ttctggcgga cgattatcgg ccagcaccg  
 720  
 agtggggagg aacaggcacg gttgcagtcg gaaaaccag atgcacgact cgtcgacgtc  
 780  
 agttcggttg ccagtcactc gttcggtgac gcgt  
 814

<210> 216  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 216  
 Lys Phe Arg Thr Arg Ser Gly Thr Val Arg Ala Leu Asp Asp Val Ser  
 1 5 10 15  
 Leu Ala Ile Lys Arg Gly Ser Ile Ser Ala Val Ile Gly His Ser Gly  
 20 25 30  
 Ala Gly Lys Ser Thr Leu Val Arg Leu Ile Asn Gly Leu Glu Thr Pro  
 35 40 45  
 Thr Arg Gly Arg Val Leu Val Asp Gly Thr Asp Val Ser Gln Leu Ser  
 50 55 60  
 Asp Lys Ala Met Arg Pro Leu Arg Ala Asp Ile Gly Met Ile Phe Gln

65					70					75				80
Gln	Phe	Asn	Leu	Phe	Gly	Ser	Arg	Thr	Ile	Tyr	Asp	Asn	Val	Ala Tyr
				85					90				95	
Pro	Leu	Lys	Leu	Ala	His	Trp	Lys	Lys	Ala	Asp	Glu	Lys	Lys	Arg Val
			100						105				110	
Thr	Glu	Leu	Leu	Ser	Phe	Val	Gly	Leu	Thr	Ser	Lys	Ala	Trp	Asp His
		115					120					125		
Pro	Asp	Gln	Leu	Ser	Gly	Gly	Gln	Lys	Gln	Arg	Val	Gly	Ile	Ala Arg
		130				135					140			
Ala	Leu	Ala	Thr	Lys	Pro	Ser	Ile	Leu	Leu	Ala	Asp	Glu	Ser	Thr Ser
145					150					155				160
Ala	Leu	Asp	Pro	Glu	Thr	Thr	Ala	Asp	Val	Leu	Ser	Leu	Leu	Lys Arg
			165						170				175	
Val	Asn	Ala	Glu	Leu	Gly	Val	Thr	Val	Val	Val	Ile	Thr	His	Glu Met
		180						185					190	
Glu	Val	Val	Arg	Ser	Ile	Ala	Gln	Gln	Val	Ser	Val	Leu	Ala	Ala Gly
		195					200					205		
His	Leu	Val	Glu	Ser	Gly	Ser	Ala	Arg	Gln	Val	Phe	Ala	His	Pro Gln
	210					215					220			
Ser	Glu	Thr	Thr	Gln	Arg	Phe	Leu	Ala	Thr	Ile	Ile	Gly	Gln	His Pro
225					230					235				240
Ser	Gly	Glu	Glu	Gln	Ala	Arg	Leu	Gln	Ser	Glu	Asn	Pro	Asp	Ala Arg
			245						250				255	
Leu	Val	Asp	Val	Ser	Ser	Val	Ala	Ser	His	Ser	Phe	Gly	Asp	Ala
		260						265					270	

&lt;210&gt; 217

&lt;211&gt; 500

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 217

nnacgcgtcg cgatgaaaga ggcgctgaaa ggtgccatcc agattccaac agtgactttt  
 60  
 agctctgaga agtccaatac tacagccctg gctgagttcg gaaaatacat tcataaagtc  
 120  
 tttcctacag tggtcagcac cagctttatc cagcatgaag tctgtgaaga gtatagccac  
 180  
 ctgttcacta tccaaggctc ggaccccagc ttgcagccct acctgctgat ggctcacttt  
 240  
 gatgtggtgc ctgccctga agaaggctgg gaggtgcccc cattctctgg gttggagcgt  
 300  
 gatggcgctca tctatggttg gggcacactg gacgacaaga actctgtgat ggcattactg  
 360  
 caggccttgg agctcctgct gatcaggaag tacatcccc gaagatcttt cttcatttct  
 420  
 ctggggccatg atgaggagtc atcagggaca ggggctcaga ggatctcagc cctgctacag  
 480  
 tcaaggggcg tccagctagc  
 500

&lt;210&gt; 218

&lt;211&gt; 166

&lt;212&gt; PRT

<213> Homo sapiens

<400> 218

```

Xaa Arg Val Ala Met Lys Glu Ala Leu Lys Gly Ala Ile Gln Ile Pro
 1           5           10           15
Thr Val Thr Phe Ser Ser Glu Lys Ser Asn Thr Thr Ala Leu Ala Glu
      20           25           30
Phe Gly Lys Tyr Ile His Lys Val Phe Pro Thr Val Val Ser Thr Ser
      35           40           45
Phe Ile Gln His Glu Val Val Glu Glu Tyr Ser His Leu Phe Thr Ile
      50           55           60
Gln Gly Ser Asp Pro Ser Leu Gln Pro Tyr Leu Leu Met Ala His Phe
      65           70           75           80
Asp Val Val Pro Ala Pro Glu Glu Gly Trp Glu Val Pro Pro Phe Ser
      85           90           95
Gly Leu Glu Arg Asp Gly Val Ile Tyr Gly Trp Gly Thr Leu Asp Asp
      100          105          110
Lys Asn Ser Val Met Ala Leu Leu Gln Ala Leu Glu Leu Leu Leu Ile
      115          120          125
Arg Lys Tyr Ile Pro Arg Arg Ser Phe Phe Ile Ser Leu Gly His Asp
      130          135          140
Glu Glu Ser Ser Gly Thr Gly Ala Gln Arg Ile Ser Ala Leu Leu Gln
      145          150          155          160
Ser Arg Gly Val Gln Leu
      165

```

<210> 219

<211> 361

<212> DNA

<213> Homo sapiens

<400> 219

```

acgcgttgaa acgggtatat tggggatgac gccgctgtgc aatatgcgca aggccataca
60
caaggctcgc acgctcccat gtccctcggt ttcgacagtt cttttgcgcc gcattatggc
120
gaagccgtcg agattgcgcc tgatatcaag cgcacacgg tcaacaaccc cagccccttc
180
acttttttcg gcaccaacag ttatctgatc ggccgcgata cgctggcatt gatcgatccc
240
ggtccgcttg acgaggccca tcacgcggcg ctgctgcgtg ccattgccgg ccggccggtc
300
agccatatct ttgtcagcca cacacaccgg gaccactcgc cagtcgcgac ggttttgaaa
360
g
361

```

<210> 220

<211> 102

<212> PRT

<213> Homo sapiens

<400> 220

```

Met Ala Asp Arg Pro Ala Gly Asn Gly Thr Gln Gln Arg Arg Val Met

```

```

      1           5           10           15
Gly Leu Val Lys Arg Thr Gly Ile Asp Gln Cys Gln Arg Ile Ala Ala
      20           25           30
Asp Gln Ile Thr Val Gly Ala Glu Lys Ser Glu Gly Ala Gly Val Val
      35           40           45
Asp Arg Asp Ala Leu Asp Ile Arg Arg Asn Leu Asp Gly Phe Ala Ile
      50           55           60
Met Arg Arg Lys Arg Thr Val Glu Asn Glu Gly His Gly Ser Val Arg
65           70           75           80
Thr Leu Cys Met Ala Leu Arg Ile Leu His Ser Gly Val Ile Pro Asn
      85           90           95
Ile Pro Val Ser Thr Arg
      100

```

&lt;210&gt; 221

&lt;211&gt; 401

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 221

```

agatctctgt gtcgtcggct gcaaagagga tgagcccaga tgcataatcag gggctccctc
60
ccacatccca cctgctcggg cagcccacgg cagccccaca ctgctgcagc acacctcgct
120
gcagctctgg ttctectca gaaatatecc tgccaccctg ctaagccttg gccaacactg
180
caccctgtcc caatgaggct ccagtgaacca cacccccagg gcataccctc ctacagagca
240
ttccccaaaa aggctagagt agacaccagc ctgctccgta gggggcctcc accccattct
300
ccaaggcctc caccagggga cgctgggtga accagcatcc aggctggcc cacctccctg
360
ctcagagtcc atgttctgtg acaagggtgg caactgggat t
401

```

&lt;210&gt; 222

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 222

```

Met Asp Ser Glu Gln Gly Gly Gly Pro Gly Leu Asp Ala Gly Ser Pro
      1           5           10           15
Gly Val Pro Gly Trp Arg Pro Trp Arg Met Gly Trp Arg Pro Pro Thr
      20           25           30
Glu Gln Ala Gly Val Tyr Ser Ser Leu Phe Trp Glu Cys Ser Val Gly
      35           40           45
Gly Tyr Ala Leu Gly Val Trp Ser Leu Glu Pro His Trp Asp Arg Val
      50           55           60
Gln Cys Trp Pro Arg Leu Ser Arg Val Ala Gly Ile Phe Leu Arg Arg
65           70           75           80
Asn Gln Ser Cys Ser Glu Val Cys Cys Ser Ser Val Gly Leu Pro Trp
      85           90           95
Ala Ala Arg Ala Gly Gly Met Trp Glu Gly Ala Pro Asp Met His Leu

```

100 105 110  
 Gly Ser Ser Ser Leu Gln Pro Thr Thr Gln Arg Ser  
 115 120

<210> 223  
 <211> 331  
 <212> DNA  
 <213> Homo sapiens

<400> 223  
 tcatgaaatc tgtgggcagt gaccaggag ggtatgggca ggcccaacca ggttggtgtg  
 60  
 cccttgaagc cccacagacc tgccagggca gcagggcagt tgggagccgg agaacctgag  
 120  
 aaccaagcca ggetgcatgc aggaggctgg cacgtgaacg ctgcaggtgt tgccggcagc  
 180  
 cgtgggtgctt ggcagatagt gttcgacccc cnaggacctt cttgctgggc agcccagtc  
 240  
 aaaagctggt cccgcttaag ccacccccac cgccttgccc acacctggca catgggtgaa  
 300  
 gcaagggcat ttcccggggc ttctgttcc c  
 331

<210> 224  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 224  
 Met Pro Leu Leu His Pro Cys Ala Arg Cys Gly Gln Gly Gly Gly Gly  
 1 5 10 15  
 Gly Leu Ser Gly Asn Ser Phe Trp Thr Gly Leu Pro Ser Lys Lys Val  
 20 25 30  
 Leu Gly Gly Arg Thr Leu Ser Ala Arg His His Gly Cys Arg Gln His  
 35 40 45  
 Leu Gln Arg Ser Arg Ala Ser Leu Leu His Ala Ala Trp Leu Gly Ser  
 50 55 60  
 Gln Val Leu Arg Leu Pro Thr Ala Leu Leu Pro Trp Gln Val Cys Gly  
 65 70 75 80  
 Ala Ser Arg Ala His Gln Pro Gly Trp Ala Cys Pro Tyr Pro Pro Gly  
 85 90 95  
 Ser Leu Pro Thr Asp Phe Met  
 100

<210> 225  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 225  
 tgatcacggg cgtgagccac cagcccagca tcccttgctt ttcattcgca cctccacctc  
 60  
 cagaatgacc ctcatccct cctgcacaga cggtgacagc agtaactcct acaaacacca  
 120

ccagactgat cttcaagagc agaggaactc ccaatcacga ttccaccccc gccgggctct  
 180  
 caaatcctcc agggctgcct gctatggggg agggaggcac actttgcttg gctctcaagg  
 240  
 cctcagccag ccgggtccaa accaactccc agcctggcct caccatccca ccgccaaacc  
 300  
 tttgtcaca ctggccccctc ttcttggaac atgggcctn  
 339

<210> 226

<211> 91

<212> PRT

<213> Homo sapiens

<400> 226

Met	Thr	Leu	Ile	Pro	Ser	Cys	Thr	Asp	Gly	Asp	Ser	Ser	Asn	Ser	Tyr
1				5					10				15		
Lys	His	His	Gln	Thr	Asp	Leu	Gln	Glu	Gln	Arg	Asn	Ser	Gln	Ser	Arg
			20					25					30		
Phe	His	Pro	Arg	Arg	Ala	Leu	Lys	Ser	Ser	Arg	Ala	Ala	Cys	Tyr	Gly
			35				40					45			
Gly	Gly	Arg	His	Thr	Leu	Leu	Gly	Ser	Gln	Gly	Leu	Ser	Gln	Pro	Gly
			50				55					60			
Pro	Asn	Gln	Leu	Pro	Ala	Trp	Pro	His	His	Pro	Thr	Ala	Lys	Pro	Leu
65					70					75				80	
Leu	Thr	Leu	Ala	Pro	Leu	Pro	Gly	Thr	Trp	Ala					
					85					90					

<210> 227

<211> 353

<212> DNA

<213> Homo sapiens

<400> 227

gtcgaccctc tcgattgtgg cgaactccat ggctgctgcg ggctgcgta ggctctcgag  
 60  
 tagctcgacg tcgggttcgc gagggctcgc agcgtggcca tgcgtcttct tggatggttc  
 120  
 gggcaactcc tcgggggatt cgagcagttc ttggcgcacc tgccttgggc tcatcccga  
 180  
 ggccaggccg acaagtgctg cctcctgccca cccgctgagc gacgctgccca tgttgagtac  
 240  
 ggcgtcttca ctggtcaggg cgagcgcggt atcgaccagg ttggcgtcca ggccgagaga  
 300  
 cagcatgtct gctcagtcgc ggtgatgact ggagtggcgg tctcctgcac ggg  
 353

<210> 228

<211> 102

<212> PRT

<213> Homo sapiens

<400> 228

Met Leu Ser Leu Gly Leu Asp Ala Asn Leu Val Asp Thr Ala Leu Ala

```

      1             5             10             15
Leu Thr Ser Glu Asp Ala Val Leu Asn Met Ala Ala Ser Leu Ser Gly
      20             25             30
Trp Gln Glu Ala Ala Leu Val Gly Leu Ala Ser Gly Met Thr Pro Glu
      35             40             45
Gln Val Arg Gln Glu Leu Leu Glu Ser Pro Glu Glu Leu Pro Glu Pro
      50             55             60
Ser Lys Lys Gln His Gly His Ala Ala Ser Pro Arg Glu Pro Asp Val
      65             70             75             80
Glu Leu Leu Glu Ser Leu Arg Arg Pro Ala Ala Ala Met Glu Phe Ala
      85             90             95
Thr Ile Glu Gly Val Asp
      100

```

&lt;210&gt; 229

&lt;211&gt; 743

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 229

```

nnggctaggg acacggcctc ctcctcaaca ggcagtgcct gtgcaggctc aggggcatca
60
tcaaagataa cacagggctg gtcaggggct gctggctgct cctgccccag gactggctcc
120
aggatgggca aggtgcctc cctggtagcc agggggagag ggaaggag caccaggag
180
tgggccagca ggtgtggcat cggccaggag gagatggagg ccagcagcag ccaagaccag
240
agtaaagtgt ctgccccagg ggtgtcaca gccaggacc gggtagttgg aaagccagcc
300
cagcttggca ctacgaggag ccaggaggca gatgttcagg actgggagtt cagaaagagg
360
gattcccagg gcacttactc cagccgggat gcagaactcc aggaccagga attcggaag
420
agagattcac tgggtaccta cagtagtcga gatgtaagcc ttggggactg ggaatttggg
480
aagagagatt ctctgggtgc ttatgccagc caagatgcca acgagcaggg ccaagatttg
540
gggaagaggg accaccatgg taggtacagc agccaggatg ccgatgagca ggactgggag
600
tttcagaaga gagatgtgtc actcggcacc tatggcagcc gggctgcgga gccacaggaa
660
caggagtttg ggaagagcgc ttggataagg gactacagca gtggtggcag ctccaggacc
720
cttgacgccc aggacagaag ctt
743

```

&lt;210&gt; 230

&lt;211&gt; 247

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 230

```

Xaa Ala Arg Asp Thr Ala Ser Ser Ser Thr Gly Ser Ala Cys Ala Gly

```

1	5	10	15
Ser Gly Ala	Ser Ser Lys Ile Thr Gln Gly Trp Ser Gly Ala Ala Gly		
	20	25	30
Cys Ser Cys	Pro Arg Thr Gly Ser Arg Met Gly Lys Ala Ala Ser Leu		
	35	40	45
Val Ala Arg	Gly Arg Gly Glu Gly Ser Thr Arg Glu Trp Ala Ser Arg		
	50	55	60
Cys Gly Ile	Gly Gln Glu Met Glu Ala Ser Ser Ser Gln Asp Gln		
65	70	75	80
Ser Lys Val	Ser Ala Pro Gly Val Leu Thr Ala Gln Asp Arg Val Val		
	85	90	95
Gly Lys Pro	Ala Gln Leu Gly Thr Gln Arg Ser Gln Glu Ala Asp Val		
	100	105	110
Gln Asp Trp	Glu Phe Arg Lys Arg Asp Ser Gln Gly Thr Tyr Ser Ser		
	115	120	125
Arg Asp Ala	Glu Leu Gln Asp Gln Glu Phe Gly Lys Arg Asp Ser Leu		
	130	135	140
Gly Thr Tyr	Ser Ser Arg Asp Val Ser Leu Gly Asp Trp Glu Phe Gly		
145	150	155	160
Lys Arg Asp	Ser Leu Gly Ala Tyr Ala Ser Gln Asp Ala Asn Glu Gln		
	165	170	175
Gly Gln Asp	Leu Gly Lys Arg Asp His His Gly Arg Tyr Ser Ser Gln		
	180	185	190
Asp Ala Asp	Glu Gln Asp Trp Glu Phe Gln Lys Arg Asp Val Ser Leu		
	195	200	205
Gly Thr Tyr	Gly Ser Arg Ala Ala Glu Pro Gln Glu Gln Glu Phe Gly		
	210	215	220
Lys Ser Ala	Trp Ile Arg Asp Tyr Ser Ser Gly Gly Ser Ser Arg Thr		
225	230	235	240
Leu Asp Ala	Gln Asp Arg Ser		
	245		

&lt;210&gt; 231

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 231

acgcgttggc caccgagagg ctggcgaggg tgtgcagcac ggcgcagtgt ggcagggctcc

60

caggggtgcag cctgcgcage agctcctcca tcaccttgct gatgaactgt cttcccacgg

120

ccaccaggac gccactcgcc gctgctgcc agtcccagac caggtccttc gtcttggtca

180

tctcgctgga ggccaggagg atgatggtgc tggctgtgtc cttgtccagc tcactggcgc

240

gactgctcag gacctctcc atggccctca ggaccgctgc tcggtatggg tgtgccagct

300

tgtcatgctg ccgcagatac tcctgcagg caggagcgt ctccaccctg ctggacgcca

360

tcaccgataa ggacccctg gtgcaggagc aggtctgcag tgcctgtgc tccctcgggg

420

aggtgcggcc g

431



<210> 232  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 232  
 Met Ala Ser Ser Arg Val Glu Thr Leu Arg Ala Cys Glu Glu Tyr Leu  
 1 5 10 15  
 Arg Gln His Asp Lys Leu Ala His Pro Tyr Arg Ala Ala Val Leu Arg  
 20 25 30  
 Ala Met Glu Arg Val Leu Ser Ser Arg Ala Ser Glu Leu Asp Lys Asp  
 35 40 45  
 Thr Ala Ser Thr Ile Ile Leu Leu Ala Ser Ser Glu Met Thr Lys Thr  
 50 55 60  
 Lys Asp Leu Val Trp Asp Trp Gln Gln Ala Ala Ser Gly Val Leu Val  
 65 70 75 80  
 Ala Val Gly Arg Gln Phe Ile Ser Lys Val Met Glu Glu Leu Leu Arg  
 85 90 95  
 Arg Leu His Pro Gly Thr Leu Pro His Cys Ala Val Leu His Thr Leu  
 100 105 110  
 Ala Ser Leu Ser Val Ala Asn Ala  
 115 120

<210> 233  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

<400> 233  
 acgcgttcag ggatgccaga aatctaactg ggtaataaaa agctgggaga acattccaga  
 60  
 aaggtgggca cccttagcat tcccaaaaag caccagccct cctcatcctt cccagcttct  
 120  
 gtgctggaat gcaccccat cggaaggct cgaaaactca ggacacatta ggatcacctg  
 180  
 gaaagcattt gtcaaaacgc atctccctgc gggtcagggt ccaagttaaa atcaaaactc  
 240  
 aggtgatgct gactcagggt gctccagaaa cacctgggga agcagcactt tggaggctgc  
 300  
 ctctcacatc caccacacag caagtgggca gggagctagg taaatctcct tcccagttga  
 360  
 gaaggggctc ggagcaggca cagagaagag atacccttag aatgcaagtt gttcagctgc  
 420  
 gaaagtccag cctgcaggct tctgggcaa gctagtgggc tgaagtatgc cacagcaaca  
 480  
 ggcttctaga gccgctgcc cagctcctac tctgctctg ccaactcactg actgtgtggt  
 540  
 cttgagcagg tcacctgtct gacttggtga gagctgacag gcatcacctg ttagaggctt  
 600  
 acgcgt  
 606

<210> 234

<211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 234  
 Met His Pro His Arg Lys Gly Ser Lys Thr Gln Asp Thr Leu Gly Ser  
 1 5 10 15  
 Pro Gly Lys His Leu Ser Lys Arg Ile Ser Leu Arg Val Arg Val Gln  
 20 25 30  
 Val Lys Ile Lys Leu Gln Val Met Leu Thr Gln Val Ala Pro Glu Thr  
 35 40 45  
 Pro Gly Glu Ala Ala Leu Trp Arg Leu Pro Leu Thr Ser Thr Pro Gln  
 50 55 60  
 Gln Val Gly Arg Glu Leu Gly Lys Ser Pro Ser Gln Leu Arg Arg Gly  
 65 70 75 80  
 Ser Glu Gln Ala Gln Arg Arg Asp Thr Leu Arg Met Gln Val Val Gln  
 85 90 95  
 Leu Arg Lys Ser Ser Leu Gln Ala Ser Trp Ala Ser  
 100 105

<210> 235  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 235  
 cgaccgttga ctattctcta caaaccacaa agacaatgat tgatttaact gaatttagaa  
 60  
 atagcaaaca cttaaaacag cagcagtaca gagctgaaaa ccagattctt ttgaaagaga  
 120  
 ttgaaagtct agaggaagaa cgacttgatc tgaaaaaaaa aattcgccaa atggctcaag  
 180  
 aaagaggaaa aagaaggga acttcaggat taaccactgg ggacctgaac ctaactgaaa  
 240  
 acatttctca aggagataga ataagtga aaattgga tttattgagc ctcaaaaata  
 300  
 tgagtgaagc acaatcaaag aatgaatt  
 328

<210> 236  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 236  
 Met Ile Asp Leu Thr Glu Phe Arg Asn Ser Lys His Leu Lys Gln Gln  
 1 5 10 15  
 Gln Tyr Arg Ala Glu Asn Gln Ile Leu Leu Lys Glu Ile Glu Ser Leu  
 20 25 30  
 Glu Glu Glu Arg Leu Asp Leu Lys Lys Lys Ile Arg Gln Met Ala Gln  
 35 40 45  
 Glu Arg Gly Lys Arg Arg Ala Thr Ser Gly Leu Thr Thr Gly Asp Leu  
 50 55 60  
 Asn Leu Thr Glu Asn Ile Ser Gln Gly Asp Arg Ile Ser Glu Arg Lys

65                                      70                                      75                                      80  
 Leu Asp Leu Leu Ser Leu Lys Asn Met Ser Glu Ala Gln Ser Lys Asn  
                                     85                                      90                                      95  
 Glu

<210> 237

<211> 2059

<212> DNA

<213> Homo sapiens

<400> 237

ggccataagg gcacgacgca ttcctagccg atgcaccaac acgggcatga agcctgccga  
 60  
 gagcacgaag ccggcggtcca tagctacggc ccatacggtc atgtctgccca tggctcogtt  
 120  
 gatgtcagac tgcacatgaa atcgggttacg gtaccccagg atcatcgcta ccgagtacac  
 180  
 cccgaacagc acccgctggg cgccgatcag cgtgaggag tgccccacca gtggcacttt  
 240  
 tcttagatag cggaacccat ccaccacatc ccagtcacc gttctcatcg tccgggaacg  
 300  
 atccaccagt ggcggcccaa gtcctcgacg tgaaaactgc agcccctagg cgaccgagac  
 360  
 tgcgaagagg gctgcggaga tgcagaaaat gatcgtgtcg gctgggtgca caggaatatg  
 420  
 gcgtccggca atcatgcgca ctgctgcagc aacaaccgca ccgatcatga gccctagcgg  
 480  
 ccaatcgttg gcatgattga cgatgccgtc aggtagtcgc gcttgctgat ggtgtattcc  
 540  
 aaccacgca ccaaggcggt gagcaaaaac cggttcaggc tcatcgcat gagcaacca  
 600  
 atgagcaagg ccagggtgga gggcttatcg cgcgcaccac ccagaccaa gatccccagc  
 660  
 ccgaccagg tgacggcacg cattcatctg cgtattgtcc cgactacacc gtgagggcgc  
 720  
 tctctgatct gcagctcatc aagggttacg gactgcagta cctcaatgca ctctggcta  
 780  
 cccgagccca gaacctgcca cagtccctcg agaaccgga cctgcagggt attccaggca  
 840  
 gccagaccag gctccttggt gagaagacca ccacagcggc agctttccca gtagcccttt  
 900  
 cctcttttg cacagttgga acctccagtt gataaatgac tgtggactag cgcgcgtttt  
 960  
 ttgttttcag agcacacgta agggctcagc cacagcagge ccggcgctccc ggtggaagge  
 1020  
 agccctgggc ggaaccagc cgtttaacgg ctactaggc agcccagat ctggggaagc  
 1080  
 agatgagcac gtggggagct ggagtgagct gagcagaagt tttgtgccc cctgccccca  
 1140  
 tcccctccag gccacgtttt agatggccct tgtagttgag ggtcctgggt gtctcagaa  
 1200  
 ctagacatca atgcctggat ccttcagcgg gccctgccct ccttaggag acaggagtca  
 1260

ccagggcaca gccctccagg cccgcctcag gaaggaatga aaggaatgcc atcatctcta  
 1320  
 gttcccaggg cccagccttc cctttctccc cgggggcagg gacagtgcgg catattcaga  
 1380  
 ttcagacctc tttgggctga gccaccttgt gagtgcagtt actgcctttg tgtggccgtg  
 1440  
 acctctattt gtttgctttt aatttgccaa cctatcgtg ctggcagcac tttttgagca  
 1500  
 agccgagagc acccattttg gctggggatt cagatcgatg gccttgcca tgttgctcctt  
 1560  
 tctggcttcc ctgatggtgt catgtttcag cgcatgcgcc ccagccttcc ccatgtgcca  
 1620  
 aaccagaagc tccactgccc gtaggctgtc cctgtagccc tgctccctcc ctggaggctg  
 1680  
 ctcttctgat tctgagagct ggcctagtgg tgctgagggc cctttctgct ttctctgccc  
 1740  
 acctgctgag ttgccactcg cagtgttgct agttcccgct ttctgagaag aggtcatgcc  
 1800  
 tgggaggaag ggatcgatc gctgcatcga atcctctctc cgcctgtgtg cccccaggag  
 1860  
 agtagctgcc tgttgacact gctccacacc tccccacagc ctccctgcag gtgctgtgtg  
 1920  
 gccgtgatgt gcagagagca gtgagggagg gttcatgaac caggtggatc ctctttaaaa  
 1980  
 aaaaaaaaaag tttttgttat atctctaaaa tcccatagct aggaacagaa aaaaaggaaa  
 2040  
 agacttgaaa tgttctaga  
 2059

&lt;210&gt; 238

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 238

Ala	Glu	Gln	Lys	Phe	Cys	Ala	Arg	Leu	Pro	Pro	Ser	Pro	Pro	Gly	His
1				5					10					15	
Val	Leu	Asp	Gly	Pro	Cys	Ser	Cys	Gly	Ser	Trp	Val	Ser	Ser	Glu	Leu
		20						25					30		
Asp	Ile	Asn	Ala	Trp	Ile	Leu	Gln	Pro	Ala	Leu	Pro	Ser	Phe	Arg	Arg
		35					40					45			
Gln	Glu	Ser	Pro	Gly	His	Ser	Pro	Pro	Gly	Pro	Pro	Gln	Glu	Gly	Met
	50					55					60				
Lys	Gly	Met	Pro	Ser	Ser	Leu	Val	Pro	Arg	Ala	Gln	Pro	Ser	Pro	Ser
65					70				75					80	
Pro	Pro	Gly	Gln	Gly	Gln	Cys	Gly	Ile	Phe	Arg	Phe	Arg	Pro	Leu	Trp
			85					90					95		
Ala	Glu	Pro	Pro	Cys	Glu	Cys	Ser	Tyr	Cys	Leu	Cys	Val	Ala	Val	Thr
		100					105					110			
Ser	Ile	Cys	Leu	Leu	Leu	Ile	Cys	Gln	Pro	Ile	Ala	Ala	Gly	Ser	Thr
		115					120					125			

Phe

<210> 239  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 239  
 ntctagatca ctctgtagcg catgggttaa tgctgacaca atagaaaagt gcgaggacat  
 60  
 cctcgaatta atgagatggg ggactggatg agtcaagttc tcgtcgttgc ggcggctgtc  
 120  
 ggctcagctgc cctcctcca cttctgcttc tcggcggttac cccataccgt attggccgcg  
 180  
 tgttcacctt tgaatgcagc catgtcgtcg tctccgtatc gaaatgatgt gccatcgaag  
 240  
 atgccgacct cagcatcggc atctgcagtg atgagtgcgt atcgcgccac acgaaacgcc  
 300  
 cagcgcaacc gtgtcctcgc acgatacgaa gtgcttgggt atctcagctc tggtagctat  
 360  
 ggctcgtgtat ataaagcaaa ggaacttn  
 388

<210> 240  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 240  
 Met Val Asp Trp Met Ser Gln Val Leu Val Val Ala Ala Ala Val Gly  
 1 5 10 15  
 Gln Leu Pro Leu Leu His Phe Cys Phe Ser Ala Leu Pro His Thr Val  
 20 25 30  
 Leu Ala Ala Cys Ser Pro Leu Asn Ala Ala Met Ser Ser Ser Pro Tyr  
 35 40 45  
 Arg Asn Asp Val Pro Ser Lys Met Pro Thr Ser Ala Ser Ala Ser Ala  
 50 55 60  
 Val Met Ser Ala Tyr Arg Ala Thr Arg Asn Ala Gln Arg Asn Arg Val  
 65 70 75 80  
 Leu Ala Arg Tyr Glu Val Leu Gly Tyr Leu Ser Ser Gly Thr Tyr Gly  
 85 90 95  
 Arg Val Tyr Lys Ala Lys Glu Leu  
 100

<210> 241  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 241  
 ncggggggcc gagttgaaag ctgccggcac actggctgtg ctgcttgctt cacttctcgg  
 60  
 gatgctgctt ccagggcggg cctgggggaa acatcggcct tcccaggcac ccttagcccg  
 120  
 tcccatctgg gggcccttag cacagtcctt gggacccac atgctgcctt tcaggctgat  
 180

gtgggcaaac tcggcagccc agcctactcc cgggcatgg gccaccatct cagcttcctt  
 240  
 ggggctaagc cgtgtgctct gaatcaaaag cagtagtggc atcggcggca ctggcgccat  
 300  
 gggaaacggg ttgacttgca caaccagcac  
 330

<210> 242  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 242  
 Met Ala Pro Val Pro Pro Met Pro Leu Leu Leu Leu Ile Gln Ser Thr  
 1 5 10 15  
 Arg Leu Ser Pro Arg Glu Ala Glu Met Val Ala His Gly Pro Gly Val  
 20 25 30  
 Gly Trp Ala Ala Glu Phe Ala His Ile Ser Leu Lys Gly Ser Met Trp  
 35 40 45  
 Gly Pro Arg Asp Cys Ala Lys Gly Pro Gln Met Gly Arg Ala Lys Gly  
 50 55 60  
 Ala Trp Glu Gly Arg Cys Phe Pro Gln Ala Arg Pro Gly Ser Ser Ile  
 65 70 75 80  
 Pro Arg Ser Glu Ala Ser Ser Thr Ala Ser Val Pro Ala Ala Phe Asn  
 85 90 95  
 Ser Ala Pro Arg  
 100

<210> 243  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 243  
 nnaccttctc tccgcgttat taccaaagat gctatgcacg taactgcgga ggaaattctt  
 60  
 cacacaggcc accccgcccc cactgcgctc gtcgctaata ttcctataa cgttgcggtg  
 120  
 cccgtactgc tacacatgct agatattctc cctccttgc ggactacagt ggtgatggtg  
 180  
 caggcagaag tagccgatcg attggctgcc acaccaggca gccgcattta cgggtgtcccc  
 240  
 agcgtcaaag tcaactttta cgggactgtc tcgctgcgg gagcaattgg acgcaatgtc  
 300  
 ttctggccgg ctcccaatgt tgattctggn  
 330

<210> 244  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 244  
 Xaa Pro Ser Leu Arg Val Ile Thr Lys Asp Ala Met His Val Thr Ala

```

      1           5           10           15
Glu Glu Ile Leu His Thr Gly His Pro Ala Pro Thr Ala Leu Val Ala
      20           25           30
Asn Leu Pro Tyr Asn Val Ala Val Pro Val Leu Leu His Met Leu Asp
      35           40           45
Ile Leu Pro Ser Leu Arg Thr Thr Val Val Met Val Gln Ala Glu Val
      50           55           60
Ala Asp Arg Leu Ala Ala Thr Pro Gly Ser Arg Ile Tyr Gly Val Pro
65           70           75           80
Ser Val Lys Val Asn Phe Tyr Gly Thr Val Ser Arg Ala Gly Ala Ile
      85           90           95
Gly Arg Asn Val Phe Trp Pro Ala Pro Asn Val Asp Ser Gly
      100           105           110

```

<210> 245  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

```

<400> 245
tctagatcct gaatcaccca cctcctagtt tcggattcac ctccgcggc gtcacctgaa
60
aacaatgtcg agcccgaatg gatgatggta gccacaccca tctcggaaaag gtggaatgca
120
gcgtgttgca gaaacagaag ttgaccgtcg gaggtaggcg gcattcgctt cggatcgaag
180
cgtcccgagg catccatctc gagttgacga cgaaaatctt tccagtccac gccgtagggg
240
ganttgccaa ccacagcatc gaatttgctc agaaggaagt ggtcgttggt gaggggtattg
300
ccccattcaa tacgcgcac tcgccggaag cgcgcctcta ttgcggccaa cgcgt
355

```

<210> 246  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

```

<400> 246
Met Arg Val Leu Asn Gly Ala Ile Pro Ser Pro Thr Thr Thr Ser Phe
      1           5           10           15
Trp Thr Asn Ser Met Leu Trp Leu Pro Xaa Pro Pro Thr Ala Trp Thr
      20           25           30
Gly Lys Ile Phe Val Val Asn Ser Arg Trp Met Pro Arg Asp Ala Ser
      35           40           45
Ile Arg Ser Glu Cys Arg Leu Pro Pro Thr Val Asn Phe Cys Phe Cys
      50           55           60
Asn Thr Leu His Ser Thr Phe Pro Arg Trp Val Trp Leu Pro Ser Ser
65           70           75           80
Ile Arg Ala Arg His Cys Phe Gln Val Thr Pro Ala Glu Val Asn Pro
      85           90           95
Lys Leu Gly Gly Gly
      100

```

<210> 247  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 247  
 atggccgcga atgggcaccg tgtcatggtc gtctctcccc gctacgacca gtacaaggac  
 60  
 gcctgggaca ccagcgtcgt gtccgagatc aagatgggag acaggtacga gacggtcagg  
 120  
 ttcttcact gctacaagcg cggagtggac cgcgtgttcg ttgaccaccc actgttcctg  
 180  
 gagagggttt ggggaaagac cgaggagaag atctacgggc ctgacgctgg aacggactac  
 240  
 agggacaacc agctgcggtt cagcctgcta tgccaggcag cacttgaagc tccaaggatc  
 300  
 ctgagcctca acaacaaccc atacttctcc gga  
 333

<210> 248  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 248  
 Met Ala Ala Asn Gly His Arg Val Met Val Val Ser Pro Arg Tyr Asp  
 1 5 10 15  
 Gln Tyr Lys Asp Ala Trp Asp Thr Ser Val Val Ser Glu Ile Lys Met  
 20 25 30  
 Gly Asp Arg Tyr Glu Thr Val Arg Phe Phe His Cys Tyr Lys Arg Gly  
 35 40 45  
 Val Asp Arg Val Phe Val Asp His Pro Leu Phe Leu Glu Arg Val Trp  
 50 55 60  
 Gly Lys Thr Glu Glu Lys Ile Tyr Gly Pro Asp Ala Gly Thr Asp Tyr  
 65 70 75 80  
 Arg Asp Asn Gln Leu Arg Phe Ser Leu Leu Cys Gln Ala Ala Leu Glu  
 85 90 95  
 Ala Pro Arg Ile Leu Ser Leu Asn Asn Asn Pro Tyr Phe Ser Gly  
 100 105 110

<210> 249  
 <211> 5503  
 <212> DNA  
 <213> Homo sapiens

<400> 249  
 atgaccagg ggattttggc cttggtcacg tccactggct gtgcatctgc caatgccctg  
 60  
 cagtcctca cggatgccat gcacatccca cacctctttg tccagcgcaa cccgggaggg  
 120  
 tcgccagca ccgatgccca cctgaacccc agccccgatg gtgaggccta cacactggct  
 180  
 tcgagaccac ccgtccgct caatgatgtc atgtcaggc tgggtgacga gctgcgctgg  
 240



cagaagttcg tcatgttcta cgacagcgag tatgatatacc gtgggcttca aagctttctg  
300  
gaccaggcct cgcggctggg ccttgacgtc tctttacaaa aggtggacaa gaacattagc  
360  
cacgtattca ccagcctgtt caccacgatg aagacagagg agctgaatcg ctaccgggac  
420  
acgcttcgcc gcgccatcct gctgctcagc ccacagggag cccactcctt catcaacgag  
480  
gccgtggaga ccaacctggc ttccaaggac agccactggg tctttgtgaa tgaggaaatc  
540  
agtgacccgg agatcctgga tctggtccat agtgcccttg gaaggatgac cgtggtccgg  
600  
caaatctttc cgtctgcaaa ggacaatcag aaatgcacga ggaacaacca ccgcatctcc  
660  
tccttgctct gcgaccccca ggaaggctac ctccagatgc tgcagatctc caacctctat  
720  
ctgtatgaca gtgttctgat gctggccaac gcctttcaca ggaagctgga ggaccggaag  
780  
tggcatagca tggcgagcct caactgcata cggaaatcca ctaagccatg gaatggtggg  
840  
aggtccatgc tggataccat caaaaagggc cacatcactg gcctcactgg ggtgatggag  
900  
tttcgggagg acagttcgaa tccctatgtc cagtttgaaa tccttggcac tacctatagt  
960  
gagacttttg gcaaagacat gcgcaagttg gcgacatggg actcagagaa gggcttgaat  
1020  
ggcagcttgc aagagaggcc catgggcagc cgctccaag gattgactct taaagtgggtg  
1080  
actgtcttgg aagagccttt cgtgatgggtg gctgagaaca tcctaggaca gccaagcgc  
1140  
taciaagggt tctccataga tgtcctggat gcactggcca aggtctctggg ctttaaatat  
1200  
gagatttacc aagccctga tggcaggtag ggtcaccagc tccataacac ctcttggaa  
1260  
gggatgatcg gggagctcat cagcaagaga gcagacttgg ccactctctg catcaccatc  
1320  
acccagaga gggagagcgt tgtggacttc agcaagcgtt acatggacta ttcagtgggg  
1380  
attctaatta agaagcccga ggagaaaatc agcatcttct ccctcttgc tccatttgat  
1440  
ttcgtgtgtt gggcctgcat tgcagcagcc atccctgtgg ttggtgtgct gatatttgtg  
1500  
ttgaacagga tacaggctgt gagggtcag agtgctgcc agcccaggcc gtcagcttct  
1560  
gccactctgc acagcgccat ctggattgtc tatggagcct tcgtacagca aggtggcgaa  
1620  
tcttccgtga actccatggc catgcgcac gtgatgggca gctggtggct cttcacgctc  
1680  
attgtgtgct cctcctacac agccaacctt gctgccttcc tcacagtgc caggatggac  
1740  
aaccaccataa ggactttcca ggacctgtcc aaacaagtgg aaatgtctta tggcactgtc  
1800  
cgggattctg ctgtatatga gtacttccga gccaaaggga ccaacccctt ggagcaggac  
1860

agcacgtttg ctgaactctg gcggaccatc agcaagaacg gaggggctga caactgcgtg  
1920  
tccagtcctt cagaaggcat caggaaggca aagaagggga actacgcctt cctgtgggat  
1980  
gtggccgtgg tggaatacgc agccctgacg gatgacgact gctcggtgac tgtcatcggc  
2040  
aacagcatca gcagcaaggg ttacgggatt gccctgcagc atggcagccc ctacagggac  
2100  
ctcttctccc agaggatcct ggagctgcag gacacagggg acctggatgt gctgaagcag  
2160  
aagtgggtggc cgcacatggg ccgctgtgac ctcaccagcc atgccagcgc ccaggccgac  
2220  
ggcaaatccc tcaagctgca cagcttcgcc ggggtcttct gcatcctggc cattggcctg  
2280  
ctcctggcct gcctgggtggc tgccctggag ttgtgggtgga acagcaaccg gtgccaccag  
2340  
gagaccccca aggaggacaa agaagtgaac ttggagcagg tccaccggcg catgaacagc  
2400  
ctcatggatg aagacattgc tcacaagcag atttccccag cgtcgattga gctctcgccc  
2460  
ctggagatgg ggggcctggc tcccaccag acctggagc cgacacggga gtaccagaac  
2520  
accagctct cggtcagcac ctttctgcc gagcagagca gccatggcac cagccggaca  
2580  
ctctcatcag ggcccagcag caacctgccg ctgccgtga gcagctcggc gaccatgccc  
2640  
tccatgcagt gcaaacacag gtcacccaac ggggggctgt tccggcagag cccggtgaag  
2700  
acccccatcc ccatgtcctt ccagcccggtg cctggaggcg tcttccaga ggctctggac  
2760  
acctcccag ggacctccat ctgactgcgc cgctgccct cctgcccacc ctcccacca  
2820  
cccgaccagc agagcttttt aatacaagaa aacaacaaca caaaccacac aactcgcac  
2880  
acacacacat acacagagac tctttcattt ttcttgata tatgtgtaa taatgacaga  
2940  
atggagtggg gtaaaagtgt attttgaata ttcccaattt tcgaagtcag taaaaaaca  
3000  
caaaaactgt atgaatgact ttgtaaattt tgttctatat gaataaaaag gcaaattact  
3060  
tgtgatcatt ctgaagtgcc aaaggagccc cccattcct gggcctttct gagggcagga  
3120  
ggggcgacca gataaggagc ccctctctgc tgggggagaa gggaagacga ggaacccac  
3180  
atgccactcg ctgcttgtc ccacagcttg ctgcccatt tcttgctcc tggcacctcg  
3240  
tcccttttag tccctcagct tgataaagag tgagtttga gcccgattg ggctggccca  
3300  
ctgggttgc gtgctgtagg gtgatcggt gttctgggta gcctggggct gaggaggtgc  
3360  
cctggactca gggctatcct gtccgtgctt ggatcttgcg ggacgagtta gtcaccgctg  
3420  
tgtgtgttgc agtgtgcctc tgcccatgg gcccgagaga agctgacaat taccatagt  
3480

gaggtaattg agggctttga tactgagctg ttctcatatc atactgttgg ccttgttttt  
3540  
cattttcttt tcaaaattag aagaatcaaa aagtgataga atattggggg aaggaggga  
3600  
gactccatcg ttctctcagg gagactgggc ggaggtgggg ttggtctgga agaaggtcca  
3660  
tgggggcagg gagttgagag gtgggggttag ttgcatggac caggtgaggt ggtggaacaa  
3720  
aaggccaggt agaggaagaa tattcccttg ggtttggacc catggtcca ggtgagagaa  
3780  
ggaagtgagg ccatagatgc agggagtaga agctttgttg tgtcaggcaa acggactctg  
3840  
ttagtaagag ttgggggagg tgcccagggt ggtggaccag tactccaggt gatggggcat  
3900  
gctgagaaat agagaaaaga gaccatgttt atttgggtag gaggaagcct tgccttgccg  
3960  
cttaggtgag aagcataagt gtaactcca tccaccaggg aagttgcttg tagcccaaa  
4020  
agtaaaggcc tatctctggg tcataaatcc tgcaggcagt ccaacaaaca gggctggctc  
4080  
cagcacaac tctcccttcc acctttacga ccctctccag accagacctg gagtctctt  
4140  
caagcagcaa tccaaccag agcaggggcc ctcccactc aggcattctga taacctctga  
4200  
gatttccagg cctatccctg tgcaggtaga gctgcaggga agcccagttt tctaagccta  
4260  
ggaccaccta acagcgcccc ctcttcagt tgccttttct gaggcaacta aactacagaa  
4320  
tcagggaaag aaccattagg agtggaaactg ggggaatctg agttgtgtca cttcagttcc  
4380  
tctcctaaag acaaagggtta gtctgatctc cagaccgctc agaatggaat acacagccca  
4440  
catctgtcac tgaaggaggt ggagctcca cagccagcag taatcaggga gctgagagcc  
4500  
tggttctgtg atcatggaga aatacaaagt cctattgatt gcttcttcta tagccttgta  
4560  
gagtttctag agagatgtat ttatgaggt gataactagc ccaggattga tttcttctc  
4620  
aaagtcccta gtgacatgat tgagcagtaa agaacggcca aatcacacag tcagctaaaa  
4680  
gcactgtggg gaagagagtg ttataatta tgttatttat tgctggatgc tgagaatggt  
4740  
ctgatattcg tgctacctag gcaatccatt gacatttctc caatcagagc atgtggacct  
4800  
tggagccagg catgctcaga gaagcctagg tgggctacca tgaccccgag gaagagcagg  
4860  
ctttgttttc catcagcacg ttgggggccc tgccctgaat ggtcaatttt tcacatatat  
4920  
atctctctat ttttttaac aaactctggt ctactgcct tatctcacac caactctgtt  
4980  
tcctcattgc cccctgagat ggctgtctt ctgggggtata gcttggatgt cttcttggat  
5040  
ggttctgctt agaatgagtg tcaaggagga aagagaggga gatggaggat gtgtttgtgc  
5100

gcctgtgtgt gtgtgtttgt gtgtgtgtgt gtgtgtgaga gagagagaga gagagagaga  
 5160  
 gaccagcatc ttcaagagaa gtattctgct tatacaaaat ccttaacacc tcatgggtgt  
 5220  
 attcttcacc atgtttatat atatatatat atattttttt ttttttttag aattttctac  
 5280  
 ccttgcatg aggggaaatg attgatattc aagcaagttc tctaggaaaa aaaaaaaact  
 5340  
 tcccaactca gatttctgtg tcagctcaga atgtatcttt ttttcatgct ttgctctttg  
 5400  
 gatttataac tctgtttaga ctattccata catttttaggt atattttgtg ccttcagaca  
 5460  
 ctgcaaataa taatcagcat ttggattaaa gttgtttaat aat  
 5503

&lt;210&gt; 250

&lt;211&gt; 927

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 250

Met	Thr	Gln	Gly	Ile	Leu	Ala	Leu	Val	Thr	Ser	Thr	Gly	Cys	Ala	Ser
1				5					10					15	
Ala	Asn	Ala	Leu	Gln	Ser	Leu	Thr	Asp	Ala	Met	His	Ile	Pro	His	Leu
	20							25					30		
Phe	Val	Gln	Arg	Asn	Pro	Gly	Gly	Ser	Pro	Arg	Thr	Ala	Cys	His	Leu
	35						40					45			
Asn	Pro	Ser	Pro	Asp	Gly	Glu	Ala	Tyr	Thr	Leu	Ala	Ser	Arg	Pro	Pro
	50					55					60				
Val	Arg	Leu	Asn	Asp	Val	Met	Leu	Arg	Leu	Val	Thr	Glu	Leu	Arg	Trp
65					70					75				80	
Gln	Lys	Phe	Val	Met	Phe	Tyr	Asp	Ser	Glu	Tyr	Asp	Ile	Arg	Gly	Leu
				85					90					95	
Gln	Ser	Phe	Leu	Asp	Gln	Ala	Ser	Arg	Leu	Gly	Leu	Asp	Val	Ser	Leu
			100					105					110		
Gln	Lys	Val	Asp	Lys	Asn	Ile	Ser	His	Val	Phe	Thr	Ser	Leu	Phe	Thr
	115						120					125			
Thr	Met	Lys	Thr	Glu	Glu	Leu	Asn	Arg	Tyr	Arg	Asp	Thr	Leu	Arg	Arg
	130					135					140				
Ala	Ile	Leu	Leu	Leu	Ser	Pro	Gln	Gly	Ala	His	Ser	Phe	Ile	Asn	Glu
145					150					155				160	
Ala	Val	Glu	Thr	Asn	Leu	Ala	Ser	Lys	Asp	Ser	His	Trp	Val	Phe	Val
				165					170					175	
Asn	Glu	Glu	Ile	Ser	Asp	Pro	Glu	Ile	Leu	Asp	Leu	Val	His	Ser	Ala
	180							185					190		
Leu	Gly	Arg	Met	Thr	Val	Val	Arg	Gln	Ile	Phe	Pro	Ser	Ala	Lys	Asp
	195						200					205			
Asn	Gln	Lys	Cys	Thr	Arg	Asn	Asn	His	Arg	Ile	Ser	Ser	Leu	Leu	Cys
	210					215					220				
Asp	Pro	Gln	Glu	Gly	Tyr	Leu	Gln	Met	Leu	Gln	Ile	Ser	Asn	Leu	Tyr
225					230					235				240	
Leu	Tyr	Asp	Ser	Val	Leu	Met	Leu	Ala	Asn	Ala	Phe	His	Arg	Lys	Leu
				245					250					255	
Glu	Asp	Arg	Lys	Trp	His	Ser	Met	Ala	Ser	Leu	Asn	Cys	Ile	Arg	Lys

563

690	695	700
Arg Ile Leu Glu Leu Gln Asp Thr Gly Asp Leu Asp Val Leu Lys Gln		
705	710	715
Lys Trp Trp Pro His Met Gly Arg Cys Asp Leu Thr Ser His Ala Ser		720
	725	730
Ala Gln Ala Asp Gly Lys Ser Leu Lys Leu His Ser Phe Ala Gly Val		735
	740	745
Phe Cys Ile Leu Ala Ile Gly Leu Leu Leu Ala Cys Leu Val Ala Ala		750
	755	760
Leu Glu Leu Trp Trp Asn Ser Asn Arg Cys His Gln Glu Thr Pro Lys		765
	770	775
Glu Asp Lys Glu Val Asn Leu Glu Gln Val His Arg Arg Met Asn Ser		780
	785	790
Leu Met Asp Glu Asp Ile Ala His Lys Gln Ile Ser Pro Ala Ser Ile		795
	805	810
Glu Leu Ser Ala Leu Glu Met Gly Gly Leu Ala Pro Thr Gln Thr Leu		815
	820	825
Glu Pro Thr Arg Glu Tyr Gln Asn Thr Gln Leu Ser Val Ser Thr Phe		830
	835	840
Leu Pro Glu Gln Ser Ser His Gly Thr Ser Arg Thr Leu Ser Ser Gly		845
	850	855
Pro Ser Ser Asn Leu Pro Leu Pro Leu Ser Ser Ser Ala Thr Met Pro		860
	865	870
Ser Met Gln Cys Lys His Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln		875
	885	890
Ser Pro Val Lys Thr Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly		895
	900	905
Gly Val Leu Pro Glu Ala Leu Asp Thr Ser His Gly Thr Ser Ile		910
	915	920
		925

<210> 251  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 251  
 nngatcagcc ggggggtccg cgcctcgat tcggcgggtgg agaccgagag tctgcgtgag  
 60  
 gacgtcaacg cgctcgaacg gctgcggttg gccgtgcgcg ccagcgtggt catcctcatc  
 120  
 gagtaccacc attcgggtgac cctgctgctg cgggtgcgcg ggaactcacc tctggaacga  
 180  
 gaggccctcg aggcccgccg ccgtatcgat gcgaagggtc ccgctctcgt cgagagcgcc  
 240  
 atcgccgagg gtggtctcgc ctcggatttc actccggggc tcatcacgcg t  
 291

<210> 252  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 252  
 Xaa Ile Ser Arg Gly Val Arg Ala Leu Asp Ser Ala Val Glu Thr Glu

```

1           5           10           15
Ser Leu Arg Glu Asp Val Asn Ala Leu Glu Arg Leu Arg Leu Ala Val
           20           25           30
Arg Ala Ser Val Val Ile Leu Ile Glu Tyr His His Ser Val Thr Leu
           35           40           45
Leu Leu Arg Val Arg Gly Asn Ser Pro Leu Glu Arg Glu Ala Leu Glu
           50           55           60
Ala Arg Arg Arg Ile Asp Ala Lys Val Pro Ala Leu Val Glu Ser Ala
65           70           75           80
Ile Ala Glu Gly Gly Leu Arg Ser Asp Phe Thr Pro Gly Leu Ile Thr
           85           90           95
Arg

```

<210> 253  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

```

<400> 253
gtgcacggat gggagcgtc gcgcgcgtgc tggcgccttc acagcccggc gagcggcgtg
60
cgctcacggc cctgtaccga ccgatctcgc aaccttcgcg agaccgatcc accaaccgcg
120
cccacatgtc ggcagtgatg gcggggcacct tgccgggagaa ggccgggaag gtcgagcgag
180
ccaatgaccg tcgcacggtc ggcacgctcc acgagcggga cgagaagctc gcggcaggac
240
gtcactcgt cgcggtgtcc tccgcggtct ccataccggt ccctgcgaca tggaacgccc
300
acgacttcgg acggcgactc gacgcgt
327

```

<210> 254  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

```

<400> 254
Met Gly Ala Leu Ala Arg Val Leu Val Pro Ser Gln Pro Gly Glu Arg
1           5           10           15
Arg Ala Leu Thr Val Leu Tyr Arg Pro Ile Ser Gln Pro Ser Ala Asp
           20           25           30
Arg Ser Thr Asn Arg Ala His Met Ser Ala Val Met Ala Gly Thr Leu
           35           40           45
Arg Glu Lys Ala Gly Lys Val Glu Arg Ala Asn Asp Arg Arg Thr Val
           50           55           60
Gly Thr Leu His Glu Arg Asp Glu Lys Leu Ala Gly Arg Ser Leu
65           70           75           80
Val Ala Val Ser Ser Ala Val Ser Ile Thr Val Pro Ala Thr Trp Asn
           85           90           95
Ala His Asp Phe Gly Arg Arg Leu Asp Ala
           100          105

```

<210> 255  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 255  
 ctagaaatgg ctggctacga atacatggaa gctgaaaata gccacaagc ccacgaaatt  
 60  
 atcgtggacc atagacctga cttaatctta tgtgattgga tgatgccagg agggagtggc  
 120  
 atcgagctaa ctcgtcgtt aaagaaagac agcacgacag cagaaatccc tggtatttta  
 180  
 ctaacggcca aaagtgaaga agacaataaa attcaaggct tagaagtcgg tgcagatgac  
 240  
 tacatcacta aacctttctc tcctcgtgaa ctagtagcac gcctcaaggc ggtattacgc  
 300  
 cgagcgactc cacaaggtat tgatgatcct attgaaattg atggtttaac gcttgatccc  
 360  
 attagccaac gc  
 372

<210> 256  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 256  
 Leu Glu Met Ala Gly Tyr Glu Tyr Met Glu Ala Glu Asn Ser Gln Gln  
 1 5 10 15  
 Ala His Glu Ile Ile Val Asp His Arg Pro Asp Leu Ile Leu Cys Asp  
 20 25 30  
 Trp Met Met Pro Gly Gly Ser Gly Ile Glu Leu Thr Arg Arg Leu Lys  
 35 40 45  
 Lys Asp Ser Thr Thr Ala Glu Ile Pro Val Ile Leu Leu Thr Ala Lys  
 50 55 60  
 Ser Glu Glu Asp Asn Lys Ile Gln Gly Leu Glu Val Gly Ala Asp Asp  
 65 70 75 80  
 Tyr Ile Thr Lys Pro Phe Ser Pro Arg Glu Leu Val Ala Arg Leu Lys  
 85 90 95  
 Ala Val Leu Arg Arg Ala Thr Pro Gln Gly Ile Asp Asp Pro Ile Glu  
 100 105 110  
 Ile Asp Gly Leu Thr Leu Asp Pro Ile Ser Gln Arg  
 115 120

<210> 257  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

<400> 257  
 nnacgcgtag cggctgaggt tgccgacacc atgcccgaa cggcctgct cgccatcgag  
 60  
 gcacccatgg gacacggcaa gaccgaggcc gccctcatgt gcgcacaggt gctcgccgaa  
 120



cggttcgggc tcggcgccat cttcttcggt ctaccgacga tggccacgtc caatcccatg  
 180  
 ttcggctcag ttcgggaatg gctggacgct gtgccagcca aggacccgtc aagcatttcc  
 240  
 ctggctcact cgaaagctgg actcaacgag gagtaccagc agctcatgcc gtggaacgcc  
 300  
 accatggccg tctacgacga aggtgccggc acgcagcgtg aagcttcggc gatcgtccat  
 360  
 gagtggttct tgggcccga ggcgcgcgac ctggccgacc acgtcgtcgg gaccatcgac  
 420  
 caggcactgt tcaccggtct caaagccaag catgtggtgt tacgccacct cggctctggcg  
 480  
 agcaaggctc tcatcattga tgaggtccac gccgccgacg tctatatgcg cgaatacctc  
 540  
 aaggctcgtc tcgaatggct cggcgccctac cgcacgccag tcatcctcat gtccgcgacg  
 600  
 ctgccaccgg cccaacgtca tgaactcggc ctagegtac  
 639

&lt;210&gt; 258

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 258

Xaa	Arg	Val	Ala	Val	Glu	Val	Ala	Asp	Thr	Met	Pro	Glu	Pro	Gly	Leu
1			5					10					15		
Leu	Ala	Ile	Glu	Ala	Pro	Met	Gly	His	Gly	Lys	Thr	Glu	Ala	Ala	Leu
			20					25					30		
Met	Cys	Ala	Gln	Val	Leu	Ala	Glu	Arg	Phe	Gly	Leu	Gly	Gly	Ile	Phe
		35					40					45			
Phe	Gly	Leu	Pro	Thr	Met	Ala	Thr	Ser	Asn	Pro	Met	Phe	Gly	Arg	Val
	50					55				60					
Arg	Glu	Trp	Leu	Asp	Ala	Val	Pro	Ala	Lys	Asp	Pro	Ser	Ser	Ile	Ser
65				70						75				80	
Leu	Ala	His	Ser	Lys	Ala	Gly	Leu	Asn	Glu	Glu	Tyr	Gln	Gln	Leu	Met
			85					90						95	
Pro	Trp	Asn	Ala	Thr	Met	Ala	Val	Tyr	Asp	Glu	Gly	Ala	Gly	Thr	Gln
		100						105					110		
Arg	Glu	Ala	Ser	Ala	Ile	Val	His	Glu	Trp	Phe	Leu	Gly	Arg	Lys	Arg
		115					120					125			
Ala	Ile	Leu	Ala	Asp	His	Val	Val	Gly	Thr	Ile	Asp	Gln	Ala	Leu	Phe
	130					135					140				
Thr	Gly	Leu	Lys	Ala	Lys	His	Val	Val	Leu	Arg	His	Leu	Gly	Leu	Ala
145				150						155				160	
Ser	Lys	Val	Val	Ile	Ile	Asp	Glu	Val	His	Ala	Ala	Asp	Val	Tyr	Met
			165					170						175	
Arg	Glu	Tyr	Leu	Lys	Val	Val	Leu	Glu	Trp	Leu	Gly	Ala	Tyr	Arg	Thr
		180						185					190		
Pro	Val	Ile	Leu	Met	Ser	Ala	Thr	Leu	Pro	Pro	Ala	Gln	Arg	His	Glu
		195					200					205			
Leu	Ala	Leu	Ala	Tyr											
210															

<210> 259  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 259  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatgggtgtg tgcacgtgtg cnactgtgta tgcattggtaa tgtgcacgtg tgcactgtg  
 120  
 tgtnggtgtg tatgcatgng tgtgtgcacg tgtgcactgn agtgtgggtg gtatgcatgg  
 180  
 tgtgtgcaca tgagcactgt gtggtgtgta tgcattgtgn ggtgcacgtg tgcactgtgt  
 240  
 atgcaatggt gt  
 252

<210> 260  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 260  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Xaa Val Cys Xaa Cys Val Cys Met Xaa Val  
 35 40 45  
 Cys Thr Cys Ala Leu Xaa Cys Gly Val Tyr Ala Trp Cys Val His Met  
 50 55 60  
 Ser Thr Val Trp Cys Val Cys Met Val Xaa Cys Thr Cys Ala Leu Cys  
 65 70 75 80  
 Met Gln Trp Cys

<210> 261  
 <211> 1202  
 <212> DNA  
 <213> Homo sapiens

<400> 261  
 gctagcccg gtcggttcgt cgtcgatttg ctggcggcag tcccctcgat cgtcttcggt  
 60  
 ctgtggggcg gcatcgcttt cggatcgctg ggaatcatca acggttacgc gggggcctta  
 120  
 ttcaaagcgc tcggttggt tccgatcttt tccgaagatc cgtcgtgggc ctcggtact  
 180  
 ggcacggtct accttgccag tctcgtcctg gccatcatga tcttgccaat tatcactgct  
 240  
 gttagccgcg acgtcatgcc ccgaacgccc catgatcaag tcgaggccgc gtcgcacctc  
 300  
 ggatcgacgc gctgggaggt catcaagctt gcagtgttcc cccactcgcg gtccggcatc  
 360

atttccggat ccatgttggg tctaggacgc gccctcggcg agaccctggc tgtcaccctc  
 420  
 atcctgcaga cgatgagccc catggcgctc aaacagaacc tcaacctgtc gatcttcgtc  
 480  
 ggtgggtgaga cattcgcgtc gaagattgcc ggtaacttct ccgaggccat tagcgatccc  
 540  
 acctcgctgg gtgccctcgt ggcgtcggcc ctggccctgt tcgtcattac cttcgtggtc  
 600  
 aacgcgactg cccggttgat tgcggcgaag ggggttaagc gatgagcgcc accaccctg  
 660  
 accacatcac ccaccatggc gacaacacgc ccggacagct agatctctcc cgcccgctcg  
 720  
 gtaaacggac tatcaagagc ggctgcgcct caacattcat gatcgtggcc accgtactgg  
 780  
 ctgttatccc actggcctgg ctgctcttcg cgcccgctcg gcgcggcacc ggatcactat  
 840  
 tccacgcgtc gtggtggacc cactcgatgg atccctcctt cgacttgccc gaggaggcg  
 900  
 ccatccacgc tatcgctcga acccttgaaa ttggccttat tacatcgatt atctcggtag  
 960  
 cgatcgctct gatgaccgag atcttcttag tcgagtacgc ccgcggaact aagatcgcca  
 1020  
 aggtcattag cttcgcgcgtc gacgtgctaa ccggtgtacc ttcaatcgtc gcggccctct  
 1080  
 tcgtcttcgc cgtagtcggt accaccttcg gtggcaccca atccgcgtgg gctcctcgt  
 1140  
 tggccctcat gatcctcatg gtccgacgg tgctgcgac aaccgaggaa atgctcaagc  
 1200  
 tt  
 1202

&lt;210&gt; 262

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 262

Ala	Ser	Pro	Val	Ala	Phe	Val	Val	Asp	Leu	Leu	Ala	Ala	Val	Pro	Ser
1			5					10						15	
Ile	Val	Phe	Gly	Leu	Trp	Gly	Gly	Ile	Val	Phe	Gly	Ser	Ser	Gly	Ile
			20					25					30		
Ile	Asn	Gly	Tyr	Ala	Gly	Ala	Leu	Phe	Lys	Ala	Leu	Gly	Trp	Ile	Pro
		35					40					45			
Ile	Phe	Ser	Glu	Asp	Pro	Ser	Trp	Ser	Ser	Ala	Thr	Gly	Thr	Val	Tyr
	50					55				60					
Leu	Ala	Ser	Leu	Val	Leu	Ala	Ile	Met	Ile	Leu	Pro	Ile	Ile	Thr	Ala
65					70					75				80	
Val	Ser	Arg	Asp	Val	Met	Pro	Arg	Thr	Pro	His	Asp	Gln	Val	Glu	Ala
			85					90					95		
Ala	Leu	Ala	Leu	Gly	Ser	Thr	Arg	Trp	Glu	Val	Ile	Lys	Leu	Ala	Val
			100					105					110		
Phe	Pro	His	Ser	Arg	Ser	Gly	Ile	Ile	Ser	Gly	Ser	Met	Leu	Gly	Leu
		115				120						125			
Gly	Arg	Ala	Leu	Gly	Glu	Thr	Leu	Ala	Val	Thr	Leu	Ile	Leu	Gln	Thr

```

      130              135              140
Met Ser Pro Met Ala Leu Lys Gln Asn Leu Asn Leu Ser Ile Phe Val
145              150              155              160
Gly Gly Glu Thr Phe Ala Ser Lys Ile Ala Gly Asn Phe Ser Glu Ala
      165              170              175
Ile Ser Asp Pro Thr Ser Leu Gly Ala Leu Val Ala Ser Ala Leu Ala
      180              185              190
Leu Phe Val Ile Thr Phe Val Val Asn Ala Thr Ala Arg Leu Ile Ala
      195              200              205
Ala Lys Gly Val Lys Arg
      210

```

&lt;210&gt; 263

&lt;211&gt; 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 263

```

acgcgtgagt gctctgcgct ggaacaacg gtgatagagc ccatccgccg tgaactttcc
60
gacgtggtgc tcgtgaacaa gctcgaaaag tatgtacgag aacgtacctc ggaagacgtt
120
gcgcacatgg aagaggatgc ggaccagacg ggcaacgaca tcctcagcac gatcctgctg
180
tcgaactggg atccactatt ggatatgacg acgcaggatc atgtgctggc catgcaaaag
240
gcttatatgg cctcgccatt ccgtgccaat ttggacctgg catacccatc ttcgacgcca
300
caggcccagt cccagccggc gatgccgccg tgggagacag ggacctcagc cagtagcatg
360
gcggatgctc gtgaatttgc gctgctgaag ctgtacctgc gtagcttgcg gcagaagcac
420
gann
424

```

&lt;210&gt; 264

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 264

```

Met Glu Glu Asp Ala Asp Gln Thr Gly Asn Asp Ile Leu Thr Thr Ile
1      5      10      15
Leu Leu Ser Asn Trp Asp Pro Leu Leu Asp Met Thr Thr Gln Asp His
      20      25      30
Val Leu Ala Met Gln Lys Ala Tyr Met Ala Ser Pro Phe Arg Ala Asn
      35      40      45
Leu Asp Leu Ala Tyr Pro Ser Ser Thr Pro Gln Ala Gln Ser Gln Pro
      50      55      60
Ala Met Pro Pro Trp Glu Thr Gly Thr Ser Ala Ser Ser Met Ala Asp
65      70      75      80
Ala Arg Glu Phe Ala Leu Leu Lys Leu Tyr Leu Arg Ser Leu Leu Gln
      85      90      95
Lys His Xaa

```

<210> 265  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 265  
 ncgtacggcc ctggcgctccg catggacgag ggataccatt ccggcatgac ggtgccgggt  
 60  
 gccttcgact cctcatcgg caagctcatc atcactgggtg atagccgtga gcaagccctg  
 120  
 gctcgagctg cccgcgcctt cgacgaaatc gtcacgacg gcatgccgac ggtcattecc  
 180  
 tttaccagg cgggtggttca cgaccgggtt ttcactgccg ccgacgggtg cttcggcgctc  
 240  
 tttaccgact ggatcgaaac cgagttcgac aacaagatcg agccatacac cgggtctctg  
 300  
 ggcgagtctg ccaattccga gcctcctcgt gaggtcgtcg tcgaggtcaa cggtaaaccg  
 360

<210> 266  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 266  
 Xaa Tyr Gly Pro Gly Val Arg Met Asp Glu Gly Tyr His Ser Gly Met  
 1 5 10 15  
 Thr Val Pro Gly Ala Phe Asp Ser Leu Ile Gly Lys Leu Ile Ile Thr  
 20 25 30  
 Gly Asp Ser Arg Glu Gln Ala Leu Ala Arg Ala Ala Arg Ala Leu Asp  
 35 40 45  
 Glu Ile Val Ile Asp Gly Met Pro Thr Val Ile Pro Phe His Gln Ala  
 50 55 60  
 Val Val His Asp Pro Ala Phe Thr Ala Ala Asp Gly Cys Phe Gly Val  
 65 70 75 80  
 Phe Thr Asp Trp Ile Glu Thr Glu Phe Asp Asn Lys Ile Glu Pro Tyr  
 85 90 95  
 Thr Gly Ser Leu Gly Glu Ser Ala Asn Ser Glu Pro Pro Arg Glu Val  
 100 105 110  
 Val Val Glu Val Asn Gly Lys Arg  
 115 120

<210> 267  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 267  
 natectcaac gtgtgttcag ttccacgcga aagatcatgt tcgtcatcgg atcgatgccg  
 60  
 ttaacgcac ctagtcaatc caccgatggc gaccctggca aaaaatacga ggtgacttgg  
 120

ctagatctcg ggcaccttca ccctagtcgg ccgggactcg tcactatcac cacaactgtc  
 180  
 gatgatgacg tcatcacctc ttcccaggta aatgtcggca acctccaccg cggggatgaa  
 240  
 aaacttttcg aagctcgca ttaccgccag attccgatgc ttgcatcacg tcatggctgg  
 300  
 acagctccat tcattggtga gaccggcgca gcccatgcc tggaggatgc gatgggcatt  
 360  
 accatcccaa ctgcggtggc atggatacga accctgctcg ctgagttcag cagaatcacc  
 420  
 tcacacttca catttttgtc atgggtaggc catcactgtg atgatgccgg c  
 471

<210> 268

<211> 157

<212> PRT

<213> Homo sapiens

<400> 268

Xaa	Pro	Gln	Arg	Val	Phe	Ser	Ser	Thr	Arg	Lys	Ile	Met	Phe	Val	Ile
1				5					10					15	
Gly	Ser	Met	Pro	Leu	Thr	His	Pro	Ser	Gln	Ser	Thr	Asp	Gly	Asp	Pro
		20						25					30		
Gly	Lys	Lys	Tyr	Glu	Val	Thr	Trp	Leu	Asp	Leu	Gly	His	Leu	His	Pro
		35					40					45			
Ser	Arg	Pro	Gly	Leu	Val	Thr	Ile	Thr	Thr	Thr	Val	Asp	Asp	Asp	Val
		50				55					60				
Ile	Thr	Ser	Ser	Gln	Val	Asn	Val	Gly	Asn	Leu	His	Arg	Gly	Asp	Glu
65				70					75					80	
Lys	Leu	Phe	Glu	Ala	Arg	Asp	Tyr	Arg	Gln	Ile	Pro	Met	Leu	Ala	Ser
			85						90				95		
Arg	His	Gly	Trp	Thr	Ala	Pro	Phe	Ile	Gly	Glu	Thr	Gly	Ala	Ala	His
		100						105					110		
Ala	Ile	Glu	Asp	Ala	Met	Gly	Ile	Thr	Ile	Pro	Thr	Arg	Val	Ala	Trp
		115					120					125			
Ile	Arg	Thr	Leu	Leu	Ala	Glu	Phe	Ser	Arg	Ile	Thr	Ser	His	Phe	Thr
		130				135						140			
Phe	Leu	Ser	Trp	Val	Gly	His	His	Cys	Asp	Asp	Ala	Gly			
145					150					155					

<210> 269

<211> 387

<212> DNA

<213> Homo sapiens

<400> 269

acgcgtgtcg tggttccaga aaaaaccaat aaattagagt ttatggtaga agtgattgct  
 60  
 gatatgacgg taatcaatcc atttgatttc tttgtggaaa gctacgcaga agactaccca  
 120  
 tttgcttatg acaaagctct taaaaaagag ttagaacctt atttacaggt ttctgaacct  
 180  
 tgttcggtac tcgacaaatg gctgtctggt gttgatcgtg aaaaaacacc gatcaatgat  
 240

tttctagtcg caataaacag tcgccttgcc ggtgatattg gctatggat tcgcttagaa  
 300  
 ccgggcgttc agtcacctga agaaacgtc acattaatga aaggtcttg tcgcgatacc  
 360  
 tcgggggttat tggttcaaact actacgc  
 387

<210> 270  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 270  
 Thr Arg Val Val Phe Pro Glu Lys Thr Asn Lys Leu Glu Phe Met Val  
 1 5 10 15  
 Glu Val Ile Ala Asp Met Thr Val Ile Asn Pro Phe Asp Phe Phe Val  
 20 25 30  
 Glu Ser Tyr Ala Glu Asp Tyr Pro Phe Ala Tyr Asp Lys Ala Leu Lys  
 35 40 45  
 Lys Glu Leu Glu Pro Tyr Leu Gln Val Ser Glu Pro Cys Ser Leu Leu  
 50 55 60  
 Asp Lys Trp Leu Ser Gly Val Asp Arg Glu Lys Thr Pro Ile Asn Asp  
 65 70 75 80  
 Phe Leu Val Ala Ile Asn Ser Arg Leu Ala Gly Asp Ile Gly Tyr Gly  
 85 90 95  
 Ile Arg Leu Glu Pro Gly Val Gln Ser Pro Glu Glu Thr Leu Thr Leu  
 100 105 110  
 Met Lys Gly Ser Cys Arg Asp Thr Ser Gly Leu Leu Val Gln Ile Leu  
 115 120 125  
 Arg

<210> 271  
 <211> 443  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
 gccggcacca acgaaagtc ctctaccgag cgcattggatg attcgctttt gcgtgccttc  
 60  
 caccgccgag tgggtttggt aaccagccca cacctgcagc gcgttactga gcgcattcggc  
 120  
 attgatggcc agccattca cccgcgcgat tatgtacgca tctggcacga gattaagcca  
 180  
 tttgtgaaa tggatgatgc cgaatcggac gtgcctatgt ctaagttcga ggtcttcgtg  
 240  
 ggcctgtcct atgtgcggt tgcgcagcc cccggggacg tcgctgtcgt cgaagtcggc  
 300  
 cttggcggac gttgggacgc taccaatgtg gtcaacgcgg atgtctctgt cattaccccg  
 360  
 gtgggcatgg accacacgga ttacctgggg gagacgatca ctgaaatcgc aggcgagaaa  
 420  
 gctggcatta ttaagccacg cgt  
 443

<210> 272  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 272  
 Ala Gly Thr Asn Gly Lys Ser Ser Thr Ala Arg Met Val Asp Ser Leu  
 1 5 10 15  
 Leu Arg Ala Phe His Arg Arg Val Gly Leu Val Thr Ser Pro His Leu  
 20 25 30  
 Gln Arg Val Thr Glu Arg Ile Gly Ile Asp Gly Gln Pro Ile His Pro  
 35 40 45  
 Arg Asp Tyr Val Arg Ile Trp His Glu Ile Lys Pro Phe Val Glu Met  
 50 55 60  
 Val Asp Ala Glu Ser Asp Val Pro Met Ser Lys Phe Glu Val Phe Val  
 65 70 75 80  
 Gly Leu Ser Tyr Ala Ala Phe Ala Asp Ala Pro Gly Asp Val Ala Val  
 85 90 95  
 Val Glu Val Gly Leu Gly Gly Arg Trp Asp Ala Thr Asn Val Val Asn  
 100 105 110  
 Ala Asp Val Ser Val Ile Thr Pro Val Gly Met Asp His Thr Asp Tyr  
 115 120 125  
 Leu Gly Glu Thr Ile Thr Glu Ile Ala Gly Glu Lys Ala Gly Ile Ile  
 130 135 140  
 Lys Pro Arg  
 145

<210> 273  
 <211> 864  
 <212> DNA  
 <213> Homo sapiens

<400> 273  
 caaagtaaga ctgcttcaaa ttttgtgttc tgctctgcag ctcgctcccc cctgctgtcg  
 60  
 aagagaagcc aaagcccccc cccccacct caaaggctcg gaagtctggc atccctactt  
 120  
 cegagcctgg atcccagtaa ggatcttgcc ctccctgcaa caccgagtgc cttagacagc  
 180  
 tgctgcctga gaactggcct ccagccgggtg tctcattcc atggggctcc ctgctgactg  
 240  
 catttctga tctgggatga tgttaccag cccaaaacca gtcattgtct tccaaaagct  
 300  
 tctctttgat agaattttga ggccatgcca cctcccttcc agtccacatg gaattccaga  
 360  
 atcagtcaca gcctctgatt ttttccaaga agagattgcc ttcaccattg ttaaattgca  
 420  
 gcctgtacgg cagagacatg gtggtctgca caagcctgga caagttcttc catattgatg  
 480  
 gtgggagcaa cccctgtaat ctactccttg gaaggatttt ttgctttgct tatgaaaagc  
 540  
 tgtgcttgag acttaggtac ttttctcagc tggacacact gatcccatcc catattgcat  
 600



ctttgaagag atggatatca agtacacttt ggtagctgaa ataatcatat ctttctgatg  
 660  
 tctattgtat ctcccttgag gaaaagaaca cacattttta atggagattg gctgctttca  
 720  
 ggtatgtgtg tctatcattg aaagagcatg gactcaaaca tcagccctga gttcttgagt  
 780  
 ccaccaact cccatcttct tgtggcacag gaaagctgcc ctctccctct cccaccacac  
 840  
 tcctgactaa tgccttcac gcgt  
 864

<210> 274  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 274  
 Met Trp Thr Gly Arg Glu Val Ala Trp Pro Gln Asn Ser Ile Lys Glu  
 1 5 10 15  
 Lys Leu Leu Glu Glu His Asp Trp Phe Trp Ala Gly Lys His His Pro  
 20 25 30  
 Arg Ser Gly Asn Ala Val Ser Arg Glu Pro His Gly Met Arg Thr Pro  
 35 40 45  
 Ala Gly Gly Gln Phe Ser Gly Ser Ser Cys Leu Arg His Ser Val Leu  
 50 55 60  
 Gln Gly Gly Gln Asp Pro Tyr Trp Asp Pro Gly Ser Glu Val Gly Met  
 65 70 75 80  
 Pro Asp Phe Arg Ala Phe Glu Val Gly Gly Gly Gly Phe Gly Phe Ser  
 85 90 95  
 Ser Thr Ala Gly Gly Ser Glu Leu Gln Ser Arg Thr Gln Asn Leu Lys  
 100 105 110  
 Gln Ser Tyr Phe  
 115

<210> 275  
 <211> 911  
 <212> DNA  
 <213> Homo sapiens

<400> 275  
 naaatttaaa ggaacctccc ttctataacg gagagtattt attgcagctt tcctttctgt  
 60  
 ttattttcag gaatgaaagg aattaccag ccttctgctt ttatacctac agctgaaagt  
 120  
 aattcctttc agcctcaggt gaagactttg ccattctcaa ttgatgctaa acagcagttg  
 180  
 caacggaaaa tccagaagaa gcagcaagaa cagaaactac aatccccctt gccaggagaa  
 240  
 tctgcagcaa aaaagtcaga aagtgtctaca agcaatggag tgactaatct tcctaattga  
 300  
 aatccttcaa tcctttctcc tcaacctatt ggtatcgttg tggcagctgt ccctagtcce  
 360  
 attccggctc agcggactag gcaattggta acttcaccga gtccaatgag ttcttctnga  
 420

cggcaaagtt cttccctca atgtacaggt ggctactcag cacatgcagt ctgtgaaaca  
 480  
 ggcaccaaag actccccaga acgttccagc agtcctgggtg ggaatcggtc tgcccggcac  
 540  
 cgttaccctc agatcttacc caaaccagcg aacaccagtg cactcaccat tcgtcttcca  
 600  
 actactgtcc tctttactag tagtcccatc aaaactgctg ttgtaccgcg ttcacacatg  
 660  
 agttctctaa atgtggtgaa aatgacaaca atatccctca caccagcaa cagtaacacc  
 720  
 cctcttaaac attctgcctc agtcagcagt gctacaggaa caacagaaga atcaaggagt  
 780  
 gttccacaga tcaagaatgg ttctgtcgtg tcgttcagt ctcctgggtc caggagcagc  
 840  
 agtgcggggg gaacatctgc tgtggaagtc aaagtggaac ccgaaacatc atcagatgag  
 900  
 catcctgtac a  
 911

&lt;210&gt; 276

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 276

Met	Lys	Gly	Ile	Thr	Gln	Pro	Ser	Ala	Phe	Ile	Pro	Thr	Ala	Glu	Ser
1				5					10					15	
Asn	Ser	Phe	Gln	Pro	Gln	Val	Lys	Thr	Leu	Pro	Ser	Pro	Ile	Asp	Ala
			20					25					30		
Lys	Gln	Gln	Leu	Gln	Arg	Lys	Ile	Gln	Lys	Lys	Gln	Gln	Glu	Gln	Lys
		35					40					45			
Leu	Gln	Ser	Pro	Leu	Pro	Gly	Glu	Ser	Ala	Ala	Lys	Lys	Ser	Glu	Ser
	50					55					60				
Ala	Thr	Ser	Asn	Gly	Val	Thr	Asn	Leu	Pro	Asn	Gly	Asn	Pro	Ser	Ile
65				70					75					80	
Leu	Ser	Pro	Gln	Pro	Ile	Gly	Ile	Val	Val	Ala	Ala	Val	Pro	Ser	Pro
			85					90					95		
Ile	Pro	Val	Gln	Arg	Thr	Arg	Gln	Leu	Val	Thr	Ser	Pro	Ser	Pro	Met
			100					105					110		
Ser	Ser	Ser	Xaa	Arg	Gln	Ser	Ser	Pro	Gln	Cys	Thr	Gly	Gly	Gly	His
		115				120					125				
Ser	Ala	His	Ala	Val	Cys	Glu	Thr	Gly	Thr	Lys	Asp	Ser	Pro	Glu	Arg
	130					135					140				
Ser	Ser	Ser	Pro	Gly	Gly	Asn	Arg	Ser	Ala	Arg	His	Arg	Tyr	Pro	Gln
145				150					155					160	
Ile	Leu	Pro	Lys	Pro	Ala	Asn	Thr	Ser	Ala	Leu	Thr	Ile	Arg	Ser	Pro
			165					170					175		
Thr	Thr	Val	Leu	Phe	Thr	Ser	Ser	Pro	Ile	Lys	Thr	Ala	Val	Val	Pro
		180						185					190		
Ala	Ser	His	Met	Ser	Ser	Leu	Asn	Val	Val	Lys	Met	Thr	Thr	Ile	Ser
	195					200						205			
Leu	Thr	Pro	Ser	Asn	Ser	Asn	Thr	Pro	Leu	Lys	His	Ser	Ala	Ser	Val
	210					215					220				
Ser	Ser	Ala	Thr	Gly	Thr	Thr	Glu	Glu	Ser	Arg	Ser	Val	Pro	Gln	Ile

577

85 90 95  
 Gly Asp Asp Ser Gly Val Ala Asp Thr Gly Glu Ala Asp Val Pro Gly  
 100 105 110  
 Ser Gly Ser  
 115

<210> 279  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
 cgggaggtca cacaagcatt caaacatag cagatggtaa atgttatgtt atgtgtattt  
 60  
 taccacaatc cttaaaaaga aaagaaagaa aggcatatgg aacccttagt tacctctcat  
 120  
 ccagcttcaa aattgtcagt gcatgggtcaa tcttgtctta tctgcccctc acccaccctt  
 180  
 ttccagaaag aagaccaga ggattccaca tctgcctgga aaccacgacc agtctcgact  
 240  
 ggaagtgtgt gttaatgttg catgtattca taaaacctct aggcatttct agtgtccctc  
 300  
 agaatttttc caaattcagg caaacacaga aattacttcc aaaaattt  
 348

<210> 280  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 280  
 Met Cys Ile Leu Pro Gln Ser Leu Lys Arg Lys Glu Arg Lys Ala Tyr  
 1 5 10 15  
 Gly Thr Pro Ser Tyr Leu Ser Ser Ser Phe Lys Ile Val Ser Ala Trp  
 20 25 30  
 Ser Ile Leu Ser Tyr Leu Pro Leu Thr His Pro Phe Pro Glu Arg Arg  
 35 40 45  
 Pro Arg Gly Phe His Ile Cys Leu Glu Thr Thr Thr Ser Leu Asp Trp  
 50 55 60  
 Lys Leu Leu Leu Met Leu His Val Phe Ile Lys Pro Leu Gly Ile Ser  
 65 70 75 80  
 Ser Val Pro Gln Asn Phe Ser Lys Phe Arg Gln Thr Gln Lys Leu Leu  
 85 90 95  
 Pro Lys Ile

<210> 281  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 281  
 agatctgcgc agatcgataa tggattaaag actcttgacg ctggagtcac cgagatgaac  
 60

aacaaggtgt tgggggcaac gaaggctgtc ggtgattcca ccactaccgt caaccaggtg  
 120  
 aattctgcgt taggaantgc cgactcagcg gcagagaaga cgtcgagcgc cgttactcag  
 180  
 acgcgcgtgg gtgcccaggc gattaccggc gctgctcaaa atgtcatggc tgattcccaa  
 240  
 gctgtcaact cagccatggt tccgcttatt aataacgtga caaagaatct tctaccttg  
 300  
 caaaaacagg ccaggaatct cgtgtcagtg aacgggtaccc tgcagaaccc caacggtgat  
 360  
 tctgtcatta agattcaaca gacc  
 384

<210> 282

<211> 110

<212> PRT

<213> Homo sapiens

<400> 282

Met	Asn	Asn	Lys	Val	Leu	Gly	Ala	Thr	Lys	Ala	Val	Gly	Asp	Ser	Thr
1				5					10					15	
Thr	Thr	Val	Asn	Gln	Val	Asn	Ser	Ala	Leu	Gly	Xaa	Ala	Asp	Ser	Ala
			20					25					30		
Ala	Glu	Lys	Thr	Ser	Ser	Ala	Val	Thr	Gln	Thr	Arg	Val	Gly	Ala	Gln
		35					40					45			
Ala	Ile	Thr	Gly	Ala	Ala	Gln	Asn	Val	Met	Ala	Asp	Ser	Gln	Ala	Val
	50					55				60					
Asn	Ser	Ala	Met	Val	Pro	Leu	Ile	Asn	Asn	Val	Thr	Lys	Asn	Leu	Pro
65					70					75				80	
Thr	Leu	Gln	Lys	Gln	Ala	Arg	Asn	Leu	Val	Ser	Val	Asn	Gly	Thr	Leu
			85					90					95		
Gln	Asn	Pro	Asn	Gly	Asp	Ser	Val	Ile	Lys	Ile	Gln	Gln	Thr		
			100					105					110		

<210> 283

<211> 426

<212> DNA

<213> Homo sapiens

<400> 283

cgcgtagacc aatgtgagac ggccgtcacc aagggcatgc gcgacaagtc ggttggttagc  
 60  
 ggaccggata ttgtgcgtcg cgagctgcgc catgtcgtga cgagcggcac gattgtcgat  
 120  
 ggaagcgtac tggctgacga attgagcagc tactgcatga gtatcaagga gcacgtccgc  
 180  
 tctgatggcc tatccgagtt tggcatctgc accctcgacg ccgccaccgc cgagttccga  
 240  
 tacatgacat tcgtcgacga tgccgtgctg tcacaactcg agacattgct gcgttctcta  
 300  
 cgcataagg aagtcttgca tgaaaaagg gtcattgtgc cttccacgct gcgcttgatc  
 360  
 cgcaacgcgg tgcccaccac ctgccaaatt accatgctca agcctgatac cgaattgtcg  
 420

gagaga  
426

<210> 284  
<211> 142  
<212> PRT  
<213> Homo sapiens

<400> 284  
Arg Val Asp Gln Cys Glu Thr Ala Val Thr Lys Gly Met Arg Asp Lys  
1 5 10 15  
Ser Val Gly Ser Gly Pro Asp Ile Val Arg Arg Glu Leu Arg His Val  
20 25 30  
Val Thr Ser Gly Thr Ile Val Asp Gly Ser Val Leu Ala Asp Glu Leu  
35 40 45  
Ser Ser Tyr Cys Met Ser Ile Lys Glu His Val Arg Ser Asp Gly Leu  
50 55 60  
Ser Glu Phe Gly Ile Cys Thr Leu Asp Ala Ala Thr Ala Glu Phe Arg  
65 70 75 80  
Tyr Met Thr Phe Val Asp Asp Ala Val Leu Ser Gln Leu Glu Thr Leu  
85 90 95  
Leu Arg Ser Leu Arg Ile Lys Glu Val Leu His Glu Lys Gly Val Met  
100 105 110  
Leu Pro Ser Thr Leu Arg Leu Ile Arg Asn Ala Val Pro Thr Thr Cys  
115 120 125  
Gln Ile Thr Met Leu Lys Pro Asp Thr Glu Leu Ser Glu Arg  
130 135 140

<210> 285  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 285  
acgcgtgcag tcccttacgc acatgctggc agatgagctc gacggcagcc gcttcaccgg  
60  
cgatttctca gaaatctaca aacgtcagaa ctcgatcttc ggcgatgtaa ggaataactt  
120  
ttacaaaaaa ggataccgca tcatcaacgt agcgaatggg gtattgcgca agatttcact  
180  
ggtaagcgca ggcaatgcag acaatgtgaa aggtcaggcc ctgttcttcc gcggtgtggc  
240  
gcatttcgaa ctcgctcggt tgtttcgaca accctggggg tatacttcgg acaattcaca  
300  
ctacggcatc ccgctccgca atgaaatcgt aattggttct attcn  
345

<210> 286  
<211> 107  
<212> PRT  
<213> Homo sapiens

<400> 286  
Met Leu Ala Asp Glu Leu Asp Gly Ser Arg Phe Thr Gly Asp Phe Ser

1	5	10	15
Glu Ile Tyr Lys Arg Gln Asn Ser Ile Phe Gly Asp Val Arg Asn Asn			
20	25	30	
Phe Tyr Lys Lys Gly Tyr Arg Ile Ile Asn Val Ala Asn Gly Val Leu			
35	40	45	
Arg Lys Ile Ser Leu Val Ser Ala Gly Asn Ala Asp Asn Val Lys Gly			
50	55	60	
Gln Ala Leu Phe Phe Arg Gly Val Ala His Phe Glu Leu Val Arg Leu			
65	70	75	80
Phe Ala Gln Pro Trp Gly Tyr Thr Ser Asp Asn Ser His Tyr Gly Ile			
85	90	95	
Pro Leu Arg Asn Glu Ile Val Ile Gly Ser Ile			
100	105		

&lt;210&gt; 287

&lt;211&gt; 1379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 287

```

nnttaactgc ccctttgcag tctttattct gggacattag cactgtctgg ttatcttgct
60
tcagttgagg gattcgggac aatagcagtg ctgatggtaa tgttggcgat ttccctgttt
120
gttttgaggg tcacggccag gggctttggg ccgctgttac agtttgccca cactgccaa
180
ctgttactca gcagagaaaa catccgcgag gtcacccgct gtgctgagtt cctgcgcag
240
cacaacctgg aggactcctg cttcagcttc ctgcagaccc agctcctgaa cagtgaggat
300
ggcctgtttg tgtgccgga ggatgctgag tgccagcgcc cacacgagga ctgcgagaac
360
tctgcaggag aggaggagga tgaaggagg gagacgatgg attcagagac ggccaagatg
420
gcttgcccca gggaccagat gcttccagag cccatcagct ttgaggccgc cgccatcccc
480
gtagcagaga aggaagaagc cctgctgccc gagcctgacg tgcccacaga caccaaggag
540
agctcagaaa aggacgcgtt aacgcagtac cccagataca agaaatacca gcttgcatgt
600
accaagaatg tctataatgc atcatcacac agtacctcag gttttgcaag cacattccgg
660
gaagataact ctagcaacag cctcaagccg gggcttgcca gggggcagat taaaagtga
720
ccgcccagtg aagagaatga ggaagagagc atcacgctct gcctgtctgg agatgagcct
780
gacgccagg acagagcggg ggatgtcgag atggaccgga aacagcccag cctgccccct
840
acccccacgg cccagctgg ggcgcctgc ctggagagat ccaggagcgt ggctcgccc
900
tcctgcttaa ggtctctgtt cagcataacg aaaagtgtgg agctgtctgg cctgcccagt
960
acatctcagc agcactttgc caggagtcca gcctgccctt ttgacaaggg gatcactcag
1020

```

ggtgacctta aaactgacta cacccttttc acaggggaatt atggacagcc ccacgtgggc  
 1080  
 cagaaggagg tgtccaactt caccatgggg tcgcccctca gggggcctgg gttggaggct  
 1140  
 ctctgtaaac aggagggaga gctggaccgg aggagcgtga tcttctctc cagcgcttgt  
 1200  
 gaccaagtga gcacctcggg gcattcttat tctgggggtga gcagtttga caaagacctc  
 1260  
 tctgagccgg tgccaaaggg tctgtgggtg ggagccggcc agtccctccc cagctcgag  
 1320  
 gcctactccc acggtgggct gatggccgac cacttgccag gaaggatgag gcccaacac  
 1379

&lt;210&gt; 288

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 288

Met	Val	Met	Leu	Ala	Ile	Ser	Leu	Phe	Val	Leu	Gln	Val	Thr	Ala	Arg
1			5					10						15	
Gly	Phe	Gly	Pro	Leu	Leu	Gln	Phe	Ala	Tyr	Thr	Ala	Lys	Leu	Leu	Leu
			20					25					30		
Ser	Arg	Glu	Asn	Ile	Arg	Glu	Val	Ile	Arg	Cys	Ala	Glu	Phe	Leu	Arg
		35					40					45			
Met	His	Asn	Leu	Glu	Asp	Ser	Cys	Phe	Ser	Phe	Leu	Gln	Thr	Gln	Leu
	50					55					60				
Leu	Asn	Ser	Glu	Asp	Gly	Leu	Phe	Val	Cys	Arg	Lys	Asp	Ala	Ala	Cys
65					70					75				80	
Gln	Arg	Pro	His	Glu	Asp	Cys	Glu	Asn	Ser	Ala	Gly	Glu	Glu	Glu	Asp
			85					90					95		
Glu	Glu	Glu	Glu	Thr	Met	Asp	Ser	Glu	Thr	Ala	Lys	Met	Ala	Cys	Pro
			100					105					110		
Arg	Asp	Gln	Met	Leu	Pro	Glu	Pro	Ile	Ser	Phe	Glu	Ala	Ala	Ala	Ile
		115					120					125			
Pro	Val	Ala	Glu	Lys	Glu	Glu	Ala	Leu	Leu	Pro	Glu	Pro	Asp	Val	Pro
	130					135					140				
Thr	Asp	Thr	Lys	Glu	Ser	Ser	Glu	Lys	Asp	Ala	Leu	Thr	Gln	Tyr	Pro
145				150					155					160	
Arg	Tyr	Lys	Lys	Tyr	Gln	Leu	Ala	Cys	Thr	Lys	Asn	Val	Tyr	Asn	Ala
			165					170					175		
Ser	Ser	His	Ser	Thr	Ser	Gly	Phe	Ala	Ser	Thr	Phe	Arg	Glu	Asp	Asn
		180					185					190			
Ser	Ser	Asn	Ser	Leu	Lys	Pro	Gly	Leu	Ala	Arg	Gly	Gln	Ile	Lys	Ser
		195					200					205			
Glu	Pro	Pro	Ser	Glu	Glu	Asn	Glu	Glu	Glu	Ser	Ile	Thr	Leu	Cys	Leu
	210					215					220				
Ser	Gly	Asp	Glu	Pro	Asp	Ala	Lys	Asp	Arg	Ala	Gly	Asp	Val	Glu	Met
225				230					235					240	
Asp	Arg	Lys	Gln	Pro	Ser	Pro	Ala	Pro	Thr	Pro	Thr	Ala	Pro	Ala	Gly
			245					250					255		
Ala	Ala	Cys	Leu	Glu	Arg	Ser	Arg	Ser	Val	Ala	Ser	Pro	Ser	Cys	Leu
		260					265					270			
Arg	Ser	Leu	Phe	Ser	Ile	Thr	Lys	Ser	Val	Glu	Leu	Ser	Gly	Leu	Pro



275	280	285
Ser Thr Ser Gln Gln His Phe Ala Arg Ser Pro Ala Cys Pro Phe Asp		
290	295	300
Lys Gly Ile Thr Gln Gly Asp Leu Lys Thr Asp Tyr Thr Pro Phe Thr		
305	310	315
Gly Asn Tyr Gly Gln Pro His Val Gly Gln Lys Glu Val Ser Asn Phe		
325	330	335
Thr Met Gly Ser Pro Leu Arg Gly Pro Gly Leu Glu Ala Leu Cys Lys		
340	345	350
Gln Glu Gly Glu Leu Asp Arg Arg Ser Val Ile Phe Ser Ser Ser Ala		
355	360	365
Cys Asp Gln Val Ser Thr Ser Val His Ser Tyr Ser Gly Val Ser Ser		
370	375	380
Leu Asp Lys Asp Leu Ser Glu Pro Val Pro Lys Gly Leu Trp Val Gly		
385	390	395
Ala Gly Gln Ser Leu Pro Ser Ser Gln Ala Tyr Ser His Gly Gly Leu		
405	410	415
Met Ala Asp His Leu Pro Gly Arg Met Arg Pro Asn		
420	425	

&lt;210&gt; 289

&lt;211&gt; 822

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 289

```

ngcattaccg ggctgaagac ggggtgctcat gacctcaacg atataggcta ttgctagaac
60
cacgccggcc cacgccgcgc aaagcgcaga cacggcacca ggaggggtca catggctgat
120
agcaagtcca aggcgaagga cgagcgact gccgatgaga tcaggcggga tattgcagcg
180
accctgtgtt gcttggcagc cggggtggag aacctcgtgg aggaggtgca tccggcaacc
240
ctcaagcgtg aagcatctga tcgtgccctg gatcttctgc aggggtgagtt tgatcaggtc
300
aagagccagg tcaaagatga gaaatggtgg cgcgtgcagc ggatcgcat ggccgcagga
360
gtgctcgtg ccggcgtcgt cagcattatt gtgctgcgcg cgatagtcgg tcgcgcaacg
420
ggcgctaccg ctctgcgcaa gcttgagaag ctgcagcttt ctcaggcgaa gcgggttcga
480
aaagatgcca agcagcgtag taaggaagat gaaaaggcag ccaagaaaaa tgccaagctc
540
ggcaagaaga acgctaagaa gtacggcaag ctcgataccg atgactcgtc ggtaagcaac
600
cttgccgaga aaatgctcaa acaggccgcc gtgctgcgtg cacaggcggc tgccggggcg
660
tgagaacagt gccgcctagc aaacagcggg cacagcgcaa aacaggtttg gctccgaccc
720
atggtggacc ggagccaaac tgtgttaccg catcatttga taccgccagc agccaggcct
780
gcgacaatgc gacgctggaa taccagcacc atgatgacta gt
822

```

<210> 290  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 290  
 Met Ala Asp Ser Lys Ser Lys Ala Lys Asp Glu Arg Thr Ala Asp Glu  
 1 5 10 15  
 Ile Arg Arg Asp Ile Ala Ala Thr Arg Ala Cys Leu Ala Ala Gly Val  
 20 25 30  
 Glu Asn Leu Val Glu Glu Val His Pro Ala Thr Leu Lys Arg Glu Ala  
 35 40 45  
 Ser Asp Arg Ala Arg Asp Phe Val Gln Gly Glu Phe Asp Gln Val Lys  
 50 55 60  
 Ser Gln Val Lys Asp Glu Lys Trp Trp Arg Val Gln Arg Ile Ala Met  
 65 70 75 80  
 Ala Ala Gly Val Leu Ala Ala Gly Val Val Ser Ile Ile Val Leu Arg  
 85 90 95  
 Ala Ile Val Gly Arg Ala Thr Gly Ala Thr Ala Arg Arg Lys Leu Glu  
 100 105 110  
 Lys Leu Gln Leu Ser Gln Ala Lys Arg Val Arg Lys Asp Ala Lys Gln  
 115 120 125  
 Arg Ser Lys Glu Asp Glu Lys Ala Ala Lys Lys Asn Ala Lys Leu Gly  
 130 135 140  
 Lys Lys Asn Ala Lys Lys Tyr Gly Lys Leu Asp Thr Asp Asp Ser Ser  
 145 150 155 160  
 Val Ser Asn Leu Ala Glu Lys Met Leu Lys Gln Ala Ala Val Leu Arg  
 165 170 175  
 Ala Gln Ala Ala Ala Gly Ala  
 180

<210> 291  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 291  
 ctccacgccc acaagactta cgacggcggt cgctgccggg ctgagtgccg ggcccgtccc  
 60  
 atcaccccc gcacgctcgc ccgcggcgtg gagaccagcg agcgcttggg ccggtatcgc  
 120  
 tgggtcgtcg agcgacacct cgctgggtc aaccgctttc ggcgctcgc catcgcctac  
 180  
 gagcggcgtg ctgacatcca cgaagccttc gtgacacctg gctgcgcct catctgcctc  
 240  
 aaccagatca gacggttttg ttaggtgctg taaagggaga atggctgcag ctgggctatc  
 300  
 tgctccctcg tcaaccagaa acaggctgct cactctcact caacaacgcg t  
 351

<210> 292  
 <211> 87  
 <212> PRT

<213> Homo sapiens

<400> 292

```

Leu His Ala Asp Lys Thr Tyr Asp Gly Arg Arg Cys Arg Ala Glu Cys
 1           5           10           15
Arg Ala Arg Ser Ile Thr Pro Arg Ile Ala Arg Arg Gly Val Glu Thr
      20           25           30
Ser Glu Arg Leu Gly Arg Tyr Arg Trp Val Val Glu Arg Thr Phe Ala
      35           40           45
Trp Leu Asn Arg Phe Arg Arg Leu Ala Ile Arg Tyr Glu Arg Arg Ala
      50           55           60
Asp Ile His Glu Ala Phe Val Ile Leu Gly Cys Ala Leu Ile Cys Leu
      65           70           75           80
Asn Gln Ile Arg Arg Phe Cys
              85

```

<210> 293

<211> 716

<212> DNA

<213> Homo sapiens

<400> 293

```

nncttcacca caccggccat caacgcacct cctcgtgata acttgacctt ctgccgaacc
60
ggttaatcag tttagtggcg aggcattgaca cgttgacgag tcagctgtgg tacatgtgcg
120
gaacactcac aatgccacgg cggcatgttg ctgtcgggtca cgaccttat ggtgatcgtg
180
gtgagaaccc gaacggcaga tgcgattctg gcggcactgg atctgaacag gtttaaggtt
240
gcgaagactt tcgatgttcc agtgtgcgtc atagctgggtg ccgggacagg taaaactcgt
300
gctgtcactc atcgcattgc ctacggtgca gcgacaggca agcttgatcc gcgtcgtacc
360
ctcgcgggtca cttttacgac taaggcagct ggcacgatga gaggtcgact cgccgatctg
420
ggggttgttg gtgtgcaggc tcgcactatt cattctgcgg cgttgcgga gatcaagttt
480
ttctggcctc gtgcatataa ctgtgagttg ccaccggtga gtgattctcg tttctcgatg
540
gtggcggaga cgacccatcg cattggtctg ggcaatgaca aggcgctgct gcgcgacttg
600
tcgcccgaga tctcgtgggc gaaggctctca aatgtgccga ctgatcaata cgcacccctg
660
gctaggggcg aaggtcgggt ggtggcggga gtttcggcaa ctgacgtagg acgcgt
716

```

<210> 294

<211> 190

<212> PRT

<213> Homo sapiens

<400> 294

```

Met Leu Leu Ser Val Thr Thr Leu Met Val Ile Ala Val Arg Thr Arg

```

```

      1           5           10           15
Thr Ala Asp Ala Ile Leu Ala Ala Leu Asp Leu Asn Arg Phe Lys Val
      20           25           30
Ala Lys Thr Phe Asp Val Pro Val Cys Val Ile Ala Gly Ala Gly Thr
      35           40           45
Gly Lys Thr Arg Ala Val Thr His Arg Ile Ala Tyr Gly Ala Ala Thr
      50           55           60
Gly Lys Leu Asp Pro Arg Arg Thr Leu Ala Val Thr Phe Thr Thr Lys
      65           70           75           80
Ala Ala Gly Thr Met Arg Gly Arg Leu Ala Asp Leu Gly Val Val Gly
      85           90           95
Val Gln Ala Arg Thr Ile His Ser Ala Ala Leu Arg Gln Ile Lys Phe
      100          105          110
Phe Trp Pro Arg Ala Tyr Asn Cys Glu Leu Pro Pro Val Ser Asp Ser
      115          120          125
Arg Phe Ser Met Val Ala Glu Thr Thr His Arg Ile Gly Leu Gly Asn
      130          135          140
Asp Lys Ala Leu Leu Arg Asp Leu Ser Ala Glu Ile Ser Trp Ala Lys
      145          150          155          160
Val Ser Asn Val Pro Thr Asp Gln Tyr Ala Ser Leu Ala Arg Ala Glu
      165          170          175
Gly Arg Val Val Ala Gly Val Ser Ala Thr Asp Val Gly Arg
      180          185          190

```

&lt;210&gt; 295

&lt;211&gt; 417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 295

```

ttcatatcag gcagtaccgc agtccatgcg atcaacaacg tcagcgtatc tttcacccat
60
tctggagtgc accttctcat gggagaaagc ggatcaggaa aaagcaccct catcaatctc
120
ctagctggtc tggatacccc agattcgggg tccgtctacg cagaaggcgt caccgtatct
180
gatcagagcg aggcgagcag agcccaattt cgattacgcc acatcgccgt catcttcag
240
gacgacaacc tcatcgctga gttgaccaat accgagaata ttgcgctacc cctgtgggcg
300
cagggcacat cgaagtccga tgccactgaa atcgcccacg aagccatgcg aaaactagga
360
atcgagtcac tgggcagacg ctaccccggc gaggtctcgg gtggccaacg gcaacgc
417

```

&lt;210&gt; 296

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 296

```

Phe Ile Ser Gly Ser Thr Arg Val His Ala Ile Asn Asn Val Ser Val
1           5           10           15
Ser Phe Thr His Ser Gly Val His Leu Leu Met Gly Glu Ser Gly Ser

```

20 25 30  
 Gly Lys Ser Thr Leu Ile Asn Leu Leu Ala Gly Leu Asp Thr Pro Asp  
 35 40 45  
 Ser Gly Ser Val Tyr Ala Glu Gly Val Thr Val Ser Asp Gln Ser Glu  
 50 55 60  
 Ala Ser Arg Ala Gln Phe Arg Leu Arg His Ile Ala Val Ile Phe Gln  
 65 70 75 80  
 Asp Asp Asn Leu Ile Ala Glu Leu Thr Asn Thr Glu Asn Ile Ala Leu  
 85 90 95  
 Pro Leu Trp Ala Gln Gly Thr Ser Lys Ser Asp Ala Thr Glu Ile Ala  
 100 105 110  
 His Glu Ala Met Arg Lys Leu Gly Ile Glu Ser Leu Gly Arg Arg Tyr  
 115 120 125  
 Pro Gly Glu Val Ser Gly Gly Gln Arg Gln Arg  
 130 135

&lt;210&gt; 297

&lt;211&gt; 378

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 297

tacaccatcg gtgaccagat tgcgaagct ctgcaggtgc actcgaagat gtccgacaag  
 60  
 gacgcttggg cgcgtgccat cgagctgctc gacttggtgg ggattccgaa tcccagagtg  
 120  
 cgtgccaaag cttttccgca cgagttttcc ggtggcatga ggcaacgagt cgtcatcgcc  
 180  
 atggccatcg cgaacgaccc tgacctcatc atcgccgacg agccgacgac ggccctcgac  
 240  
 gtgaccatcc aggcccagat tctcgatttg ctgcgcgtag cccagcgtga aacccatgcg  
 300  
 ggcgtcggtta tgatcaccca cgacctcggt gtggtagctg gtctggctga cagggttgcc  
 360  
 gtgatgtatg ccggacgc  
 378

&lt;210&gt; 298

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 298

Tyr Thr Ile Gly Asp Gln Ile Val Glu Ala Leu Gln Val His Ser Lys  
 1 5 10 15  
 Met Ser Asp Lys Asp Ala Trp Ala Arg Ala Ile Glu Leu Leu Asp Leu  
 20 25 30  
 Val Gly Ile Pro Asn Pro Glu Val Arg Ala Lys Ala Phe Pro His Glu  
 35 40 45  
 Phe Ser Gly Gly Met Arg Gln Arg Val Val Ile Ala Met Ala Ile Ala  
 50 55 60  
 Asn Asp Pro Asp Leu Ile Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp  
 65 70 75 80  
 Val Thr Ile Gln Ala Gln Ile Leu Asp Leu Leu Arg Val Ala Gln Arg

```
<210> 301
<211> 456
<212> DNA
<213> Homo sapiens
```

&lt;400&gt; 301

ggccgggtta ttgccgccc gtttgcggg gaaacccggc agaccttcga gcgcaccggc  
 60  
 aaccggcgcg actattccgt accgcccggc gaaccgacct tgctcgacag gcttacggac  
 120  
 gcgggcccga cggatgacgc aatcggaag attggtgata tctacgcgca caaaggcgtg  
 180  
 tctcaggtgc gtaaggcaat ggcaatattg gccttggtcg atgaaacact cattgccatg  
 240  
 gacgacgcgc aggacggcga tctggtcttc accaacttcg tggatttcga catgctctac  
 300  
 gggcatcgca gggatgtgcc cggctatgcc gccgcgctcg aggccttcga ccggaggctg  
 360  
 ccggaagcca tggcgaaatt gcggacgggc gatcttctga tctgacagc cgatcatggc  
 420  
 tgcgaccga ccctcaaggg aaccgaccac acgcgt  
 456

&lt;210&gt; 302

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 302

Gly	Arg	Val	Ile	Ala	Arg	Pro	Phe	Val	Gly	Glu	Thr	Arg	Gln	Thr	Phe
1				5					10					15	
Glu	Arg	Thr	Gly	Asn	Arg	Arg	Asp	Tyr	Ser	Val	Pro	Pro	Pro	Glu	Pro
			20				25						30		
Thr	Leu	Leu	Asp	Arg	Leu	Thr	Asp	Ala	Gly	Arg	Thr	Val	Ile	Ala	Ile
			35				40					45			
Gly	Lys	Ile	Gly	Asp	Ile	Tyr	Ala	His	Lys	Gly	Val	Ser	Gln	Val	Arg
	50				55					60					
Lys	Ala	Met	Ala	Ile	Leu	Ala	Leu	Phe	Asp	Glu	Thr	Leu	Ile	Ala	Met
	65				70				75					80	
Asp	Asp	Ala	Gln	Asp	Gly	Asp	Leu	Val	Phe	Thr	Asn	Phe	Val	Asp	Phe
			85				90					95			
Asp	Met	Leu	Tyr	Gly	His	Arg	Arg	Asp	Val	Pro	Gly	Tyr	Ala	Ala	Ala
		100					105					110			
Leu	Glu	Ala	Phe	Asp	Arg	Arg	Leu	Pro	Glu	Ala	Met	Ala	Lys	Leu	Arg
		115					120					125			
Thr	Gly	Asp	Leu	Leu	Ile	Leu	Thr	Ala	Asp	His	Gly	Cys	Asp	Pro	Thr
	130					135					140				
Leu	Lys	Gly	Thr	Asp	His	Thr	Arg								
	145				150										

&lt;210&gt; 303

&lt;211&gt; 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 303

nncgtgggca tcgaggagtt cctcgacatg aagtatcagg cgacgccgat tcacgtgcgc  
 60

tgacagcggg tttccggaac acatcagcgt tcagacagga gcgaggagac catgtacctg  
 120  
 ggtgctcagc tggtcagtga cagcgagtac gagcagcgcc tgagacgtgt ccgtagagtc  
 180  
 atggaccgtc agggctctgtc ggcgatcatc gtcaccgatc cggccaacat cttctatctg  
 240  
 atcggttaca acgcctgggc gttctacacc ccgcagatgc tggtcgtgcc gatcgacgga  
 300  
 gagatgggtcc tctacgctcg cgagatggat cgcattggcg acatcngcac gacgtcgttg  
 360  
 cccgccgatc agatcgctcg ttaccgggag agttatgtgc ac  
 402

&lt;210&gt; 304

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 304

Met	Tyr	Leu	Gly	Ala	Gln	Leu	Phe	Ser	Asp	Ser	Glu	Tyr	Glu	Gln	Arg
1				5					10					15	
Leu	Arg	Arg	Val	Arg	Glu	Leu	Met	Asp	Arg	Gln	Gly	Leu	Ser	Ala	Ile
			20					25					30		
Ile	Val	Thr	Asp	Pro	Ala	Asn	Ile	Phe	Tyr	Leu	Ile	Gly	Tyr	Asn	Ala
		35				40						45			
Trp	Ser	Phe	Tyr	Thr	Pro	Gln	Met	Leu	Phe	Val	Pro	Ile	Asp	Gly	Glu
	50					55					60				
Met	Val	Leu	Tyr	Ala	Arg	Glu	Met	Asp	Arg	Met	Ala	His	Ile	Xaa	Thr
65					70				75					80	
Thr	Ser	Leu	Pro	Ala	Asp	Gln	Ile	Val	Gly	Tyr	Pro	Glu	Ser	Tyr	Val
				85				90						95	

His

&lt;210&gt; 305

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 305

nnacgcgtcg gttccgcac gagcgaccgg atcgcatcga cgagcacgct gcaccagtgc  
 60  
 gtgtcgtcct ggcgaatatg ggcgatcagc cggtagagtt cgggtagctc gctcacctcg  
 120  
 gccgccattt cggatgcgac acgcgcgcct gcgcgctcgg cctccagcaa ctcgtcgagc  
 180  
 gtcgccacca gcgcggcgcg atcttcatgc ggagtcagat cggcgcgggc gtcaggcccc  
 240  
 tcgccatcgc tcggaatcga catgcagcac cctctgcca ggatcgatgg cgtaatacgt  
 300  
 gcgacgggtac acggcgcggtg ttgcacgaac gtgcaaatca gcgcgtgcct cgtgccatat  
 360  
 acgtcacatc atatg  
 375



<210> 306  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 306  
 Xaa Arg Val Gly Ser Ala Ser Ser Asp Arg Ile Ala Ser Thr Ser Thr  
 1 5 10 15  
 Leu His Gln Cys Val Ser Ser Trp Arg Ile Trp Ala Ile Ser Arg Tyr  
 20 25 30  
 Ser Ser Gly Ser Ser Leu Thr Ser Ala Ala Ile Ser Asp Ala Thr Arg  
 35 40 45  
 Ala Pro Ala Arg Ser Ala Ser Ser Asn Ser Ser Val Ala Thr Ser  
 50 55 60  
 Ala Ala Arg Ser Ser Cys Gly Val Arg Ser Ala Arg Ala Ser Gly Pro  
 65 70 75 80  
 Ser Pro Cys Val Gly Ile Asp Met Gln His Pro Pro Ala Arg Ile Asp  
 85 90 95  
 Gly Val Ile Arg Ala Thr Val His Gly Ala Cys Cys Thr Asn Val Gln  
 100 105 110  
 Ile Ser Ala Cys Leu Val Pro Tyr Thr Ser His His Met  
 115 120 125

<210> 307  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 307  
 actagttctg gcegcctcccc tggggctttg ggtaacaatt gtcagcccca cccatcctag  
 60  
 ggtaggaag gctattctct ttggccactc tcatcctaag acctatttgg agaactctg  
 120  
 gggtttgagt ctttttttca gcagaatgag gcttgatccc gcattatagc acctgcaca  
 180  
 ttgatgtct cttcttctca ccactcacc ccacctggg ggttggggca aaaaagtggc  
 240  
 tcaaagctgc ggttcagagt tccttgtaaa caaggctcct cctcactgt cctcaccctg  
 300  
 ctccagcaga gggagcagcg gaaggaccac tctgctgcag ccattgcttgt ttctaacca  
 360  
 gcagaactgg acataatggg aacaggggtct gaagacaatc aatccagggc tgcagtgggt  
 420  
 gctgagtctg gggaagcctc cacctggagg ggcagctggg cagtggcagc tcccttgaa  
 480  
 tggctcagcc tctggacatc accccacca accagagccc tggctcttgc tggatgtcca  
 540  
 catatgagtg cctgggattg gtctcagcca ctatgggggg gatgtgcagg gagaggtgat  
 600  
 gagggagtga gcaggactgt ctatgtgect ctgtcctcat cctgaggctt gggctctgaa  
 660  
 ttggtgctgc agcactggca cgcgt  
 685

<210> 308  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 308  
 Met Leu Val Ser Asn Pro Ala Glu Leu Asp Ile Met Gly Thr Gly Ser  
 1 5 10 15  
 Glu Asp Asn Gln Ser Arg Ala Ala Val Gly Ala Glu Ser Gly Glu Ala  
 20 25 30  
 Ser Thr Trp Arg Gly Ser Trp Ala Val Ala Ala Pro Leu Glu Trp Leu  
 35 40 45  
 Ser Leu Trp Thr Ser Pro His Pro Thr Arg Ala Leu Ala Leu Ala Gly  
 50 55 60  
 Cys Pro Gln Met Ser Ala Trp Asp Trp Ser Gln Pro Leu Trp Gly Gly  
 65 70 75 80  
 Cys Ala Gly Arg Gly Asp Glu Gly Val Ser Arg Thr Val Tyr Val Pro  
 85 90 95  
 Leu Ser Ser Ser  
 100

<210> 309  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 309  
 caggctcgta ctattcgat ccctgtgcat atggctcgagg tcatcaataa gctggctcgc  
 60  
 gtccagcgtc agatgctcca ggacctaggt cgtgagccca ccccggaaga gcttgccaac  
 120  
 gaactcgata tgaccgcaga gaaggctcatt gaggtgcaga aatacggctc cgagccgac  
 180  
 tcgctgcata cccactggg tgaggatggc gattctgagt tcggtgacct tattgaggat  
 240  
 tccgaggcca tcgtgccagc agacgccgtc aacttcaccc tgttcagga gcagctgcat  
 300  
 gatgtcctcg atacctgtc cgagcgagag gccggtgtcg tgtcgatgcg attcggttg  
 360  
 accgacggac agcccaagac cctggatgag atcggcaaag tctacggtgt tactcgggag  
 420  
 cgcacccgac ag  
 432

<210> 310  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 310  
 Gln Ala Arg Thr Ile Arg Ile Pro Val His Met Val Glu Val Ile Asn  
 1 5 10 15  
 Lys Leu Ala Arg Val Gln Arg Gln Met Leu Gln Asp Leu Gly Arg Glu

```

      20      25      30
Pro Thr Pro Glu Glu Leu Ala Asn Glu Leu Asp Met Thr Ala Glu Lys
      35      40      45
Val Ile Glu Val Gln Lys Tyr Gly Arg Glu Pro Ile Ser Leu His Thr
      50      55      60
Pro Leu Gly Glu Asp Gly Asp Ser Glu Phe Gly Asp Leu Ile Glu Asp
65      70      75      80
Ser Glu Ala Ile Val Pro Ala Asp Ala Val Asn Phe Thr Leu Leu Gln
      85      90      95
Glu Gln Leu His Asp Val Leu Asp Thr Leu Ser Glu Arg Glu Ala Gly
      100      105      110
Val Val Ser Met Arg Phe Gly Leu Thr Asp Gly Gln Pro Lys Thr Leu
      115      120      125
Asp Glu Ile Gly Lys Val Tyr Gly Val Thr Arg Glu Arg Ile Arg Gln
      130      135      140

```

<210> 311  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

```

<400> 311
acgcgtatcg aaaatatccc tccattatt accgctcgcc ctgaactgat ggctcatgaa
60
ctgacgccag aatctcttga tgcgagcctg gagtgggccg atgtggtggt cattggtcct
120
ggactgggac aacaagcgtg gggcaaaaaa gcgctacaaa aggtcgagaa ttgtcgtaaa
180
ccgatgctgt gggatgccga cgcgcttaac cttctggcaa tcaatcctga taaacgtcac
240
aatcgcatcc tgacgccaca ccccgcgag ggcgcgcggc tgcttagctg cagcgtcgca
300
gaaattgaaa acgatcgctt acttntctgc gcacgtctgg taaaacggta acccgagt
358

```

<210> 312  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 312
Thr Arg Ile Glu Asn Ile Pro Pro Ile Ile Thr Ala Arg Pro Glu Leu
1      5      10      15
Met Ala His Glu Leu Thr Pro Glu Ser Leu Asp Ala Ser Leu Glu Trp
      20      25      30
Ala Asp Val Val Val Ile Gly Pro Gly Leu Gly Gln Gln Ala Trp Gly
      35      40      45
Lys Lys Ala Leu Gln Lys Val Glu Asn Cys Arg Lys Pro Met Leu Trp
      50      55      60
Asp Ala Asp Ala Leu Asn Leu Leu Ala Ile Asn Pro Asp Lys Arg His
65      70      75      80
Asn Arg Ile Leu Thr Pro His Pro Gly Glu Ala Ala Arg Leu Leu Ser
      85      90      95
Cys Ser Val Ala Glu Ile Glu Asn Asp Arg Leu Leu Xaa Cys Ala Arg

```

100 105 110  
 Leu Val Lys Arg  
 115

<210> 313  
 <211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 313  
 ncaactgaaa gcattgagat gagcgacgtg ctgtccccct tccacccac caaggccaac  
 60  
 acccctggtg gcgaaccgcg caccatccgc acctogaacg cgcacatcat tgccgtcacc  
 120  
 agtggcaaaag gcggcggtggg caagaccttt gtctccgcca acctggcgc cgcgctgacc  
 180  
 cgcctgggac tgccgtgtgt ggtactggac gccgacctgg gcctggccta cttggacgtg  
 240  
 gtgctgaacc tctaccccaa ggtgacgtg cagcatgtgt tcaccggcaa ggctcgtg  
 300  
 caagacgcgg tggtcacggc ccccgccggc ttccatgtgc tgctagc  
 347

<210> 314  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 314  
 Xaa Thr Glu Ser Ile Glu Met Ser Asp Val Leu Ser Pro Phe His Pro  
 1 5 10 15  
 Thr Lys Ala Asn Thr Pro Gly Gly Glu Pro Arg Thr Ile Arg Thr Ser  
 20 25 30  
 Asn Ala His Ile Ile Ala Val Thr Ser Gly Lys Gly Gly Val Gly Lys  
 35 40 45  
 Thr Phe Val Ser Ala Asn Leu Ala Ala Leu Thr Arg Leu Gly Leu  
 50 55 60  
 Arg Val Leu Val Leu Asp Ala Asp Leu Gly Leu Ala Asn Leu Asp Val  
 65 70 75 80  
 Val Leu Asn Leu Tyr Pro Lys Val Thr Leu His Asp Val Phe Thr Gly  
 85 90 95  
 Lys Ala Ser Leu Gln Asp Ala Val Val Thr Ala Pro Gly Gly Phe His  
 100 105 110  
 Val Leu Leu  
 115

<210> 315  
 <211> 544  
 <212> DNA  
 <213> Homo sapiens

<400> 315  
 nnacgcgttc gtcaacagga aaacaacaac ggcttctcgc tggagggaac catgcttgcc  
 60

gaagatatct acgcgatcat gctgttttca tcgctcatcc tggctgtccc ggggccatcc  
 120  
 aacaccttgc tgetcagcgc cegtttccat ttcggtctgc tgcgggcggc gcccttcac  
 180  
 ctgcttgagg cggtgggcta ctgctatcc atttcggcat ggggctgggt attggcgcgc  
 240  
 ctgtccgaga gcaatccatg gatcatcagt ctgaccaagg cactctgcgc gctatatgtg  
 300  
 gcgcttctgg cggtgaagac ctggaatgcc ntcgatccgc agtgcggggc cggtaaactc  
 360  
 cgccatgggc ccctgcccct gttegtggca accctgtcga acccgaaggc gctgatcttc  
 420  
 gccagcgtga tctttcccg caaggcgttc ctgcacttct ggaacaacta cagcatctcg  
 480  
 ctgctggcct tctggttgt gctggcggcc atcgggatgc tttgggtcgg gctggggggc  
 540  
 ggta  
 544

<210> 316  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 316  
 Ile Tyr Ala Ile Met Leu Phe Ser Ser Leu Ile Leu Val Val Pro Gly  
 1 5 10 15  
 Pro Ser Asn Thr Leu Leu Leu Ser Ala Arg Phe His Phe Gly Ser Leu  
 20 25 30  
 Arg Ala Ala Pro Phe Ile Leu Leu Glu Ala Leu Gly Tyr Ser Leu Ser  
 35 40 45  
 Ile Ser Ala Trp Gly Trp Val Leu Ala Arg Leu Ser Glu Ser Asn Pro  
 50 55 60  
 Trp Ile Ile Ser Leu Thr Lys Ala Leu Cys Ala Leu Tyr Val Ala Leu  
 65 70 75 80  
 Leu Ala Val Lys Thr Trp Asn Ala Xaa Asp Pro Gln Cys Gly Ala Gly  
 85 90 95  
 Asn Phe Arg His Gly Pro Leu Pro Leu Phe Val Ala Thr Leu Ser Asn  
 100 105 110  
 Pro Lys Ala Leu Ile Phe Ala Ser Val Ile Phe Pro Gly Lys Ala Phe  
 115 120 125  
 Leu Asp Phe Trp Asn Asn Tyr Thr Ile Ser Leu Leu Ala Phe Leu Val  
 130 135 140  
 Val Leu Ala Pro Ile Gly Met Leu Trp Val Gly Leu Gly Ala Gly  
 145 150 155

<210> 317  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

<400> 317  
 nggtcagcct ctgcccagg caattctctt aagatacatg agctgctatg agtaccaaag  
 60

ccagagggttt gtccactgag agaagcacat tggaaagggg ggcgtgggcc tgggactgtg  
120  
tggcacttta tgcacggggg gggcctaagg gggnggtcc accaaccatg cactgngggg  
180  
ggggtgtggg taacatgccg tgcattttgg ggggtgtgcca tgagtggcac accatggggg  
240  
tggcatgtgg ggcattgatg catgtggtgt tggcgcagca aactcagctc ttacctggct  
300  
ggggccagcc tctaaaactt ctcacattgg gctcccttct gac  
343

<210> 318

<211> 98

<212> PRT

<213> Homo sapiens

<400> 318

Met	Ser	Thr	Lys	Ala	Arg	Gly	Leu	Ser	Thr	Glu	Arg	Ser	Thr	Leu	Glu
1				5					10					15	
Arg	Gly	Ala	Trp	Ala	Trp	Asp	Cys	Val	Ala	Leu	Tyr	Ala	Arg	Gly	Gly
			20					25					30		
Pro	Lys	Gly	Gly	Gly	Pro	Pro	Thr	Met	His	Xaa	Gly	Trp	Gly	Val	Gly
		35					40					45			
Asn	Met	Pro	Cys	Ile	Leu	Gly	Val	Cys	His	Glu	Trp	His	Thr	Met	Gly
	50					55				60					
Val	Ala	Cys	Gly	Ala	Cys	Met	His	Val	Val	Leu	Ala	Gln	Gln	Thr	Gln
65					70					75				80	
Leu	Leu	Pro	Gly	Trp	Gly	Gln	Pro	Leu	Lys	Leu	Leu	Thr	Leu	Gly	Ser
				85				90						95	
Leu	Leu														

<210> 319

<211> 429

<212> DNA

<213> Homo sapiens

<400> 319

gaattctcga tgtacccccct cccggcagtc ctattctcga gctgagcggg cacagtggcc  
60  
ccgttaacag tgtggcttgg ggtccacca gccagagcac gttgcgaaat ggacctagta  
120  
aggcatgat atgtacagga ggcgacgatg ctacgtgcct cgtatatgat ctgactagct  
180  
caactcttcg aacagcatct gctcaaggac ggcgctctcg aaacagtcca tataaacaaa  
240  
gccattcacc gggaatagac ggatggcgtg tcggcgaga agtgccgggtg ctgcgttata  
300  
cggccccgtc tatggtcaac aatgctagct ggctcggcat gcctgcgcca tcaaaacgca  
360  
catcgctaca gagcaaacac cgcagccttt accgcagctt actcagttag tggactgagt  
420  
atacgtcn  
429

<210> 320  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 320  
 Met Ile Cys Thr Gly Gly Asp Asp Ala Gln Cys Leu Val Tyr Asp Leu  
 1 5 10 15  
 Thr Ser Ser Thr Leu Arg Thr Ala Ser Ala Gln Gly Arg Arg Ser Arg  
 20 25 30  
 Asn Ser Pro Tyr Lys Gln Ser His Ser Pro Gly Ile Asp Gly Trp Arg  
 35 40 45  
 Val Gly Ala Glu Val Pro Val Leu Ala Tyr Thr Ala Pro Ser Met Val  
 50 55 60  
 Asn Asn Ala Ser Trp Leu Gly Met Pro Ala Pro Ser Lys Arg Thr Ser  
 65 70 75 80  
 Leu Gln Ser Lys His Arg Ser Leu Tyr Arg Ser Leu Leu Ser Glu Trp  
 85 90 95  
 Thr Glu Tyr Thr Ser  
 100

<210> 321  
 <211> 530  
 <212> DNA  
 <213> Homo sapiens

<400> 321  
 ngtgcaacgac gtgctcgcca agtccctcgg gtcctcctaat gcgatcaacg tgggttcacgc  
 60  
 caccgtcgat gcgttcgagc agctcgagga gcccggaagag gtcgcccgtc gccgcggcaa  
 120  
 gtccgttgag gagatcgccc cagcagccat gctgcgtgcg cgcaaggagg ccgacgaggc  
 180  
 cgccgctgct gcccgcatgg aggaaaaggc ggggggttaac tgatgagcaa gctgaagatc  
 240  
 acccagatca agtctggcat cgctaccaag ccaaatacatc gtgagaccct gcgcagcctc  
 300  
 ggactgaagc gtattggtga cacggatc acaggaggacc gcccgaggtt ccgcggcatg  
 360  
 gtccggaccg ttcgtcacct cgtcacccatg gaagagggtg actgacatgg ctattgagct  
 420  
 ccatgacctc aagcccgtc ctggtgcccc caaggccaag acccgcggtg gtcgtggtga  
 480  
 ggggttccaag ggtaagaccg ctggtcgagg taccaagggc accggtgcac  
 530

<210> 322  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 322  
 Met Ser Lys Leu Lys Ile Thr Gln Ile Lys Ser Gly Ile Ala Thr Lys

```

      1             5             10             15
Pro Asn His Arg Glu Thr Leu Arg Ser Leu Gly Leu Lys Arg Ile Gly
      20             25             30
Asp Thr Val Ile Lys Glu Asp Arg Pro Glu Phe Arg Gly Met Val Arg
      35             40             45
Thr Val Arg His Leu Val Thr Met Glu Glu Val Asp
      50             55             60

```

<210> 323  
 <211> 468  
 <212> DNA  
 <213> Homo sapiens

```

<400> 323
ntccggacccc gctgtggcca cgtattctgc cgttcctgta ttgctaccag tctaaagaac
60
aacaagtgga cctgtcctta ttgccgggca tatcttcctt cagaaggagt tccagcaact
120
gatgtagcca aaagaatgaa atcagagtat aagaactgcg ctgagtgtga caccctgggt
180
tgcctcagtg aaatgagggc acatattcgg acttgtcaga agtacataga taagtatgga
240
ccactacaag aacttgagga gacagcagca aggtgtgtat gtcccttttg tcagagggaa
300
ctgtatgaag acagcttgct ggatcattgt attactcatc acagatcgga acggaggcct
360
gtgttctgtc cactttgcca tttaataccc gatgagaatc caagcagctt cagtggcagt
420
ttaataagac atctgcaagt tagtcacact ttggtttatg atgatttc
468

```

<210> 324  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

```

<400> 324
Xaa Arg Thr Arg Cys Gly His Val Phe Cys Arg Ser Cys Ile Ala Thr
      1             5             10             15
Ser Leu Lys Asn Asn Lys Trp Thr Cys Pro Tyr Cys Arg Ala Tyr Leu
      20             25             30
Pro Ser Glu Gly Val Pro Ala Thr Asp Val Ala Lys Arg Met Lys Ser
      35             40             45
Glu Tyr Lys Asn Cys Ala Glu Cys Asp Thr Leu Val Cys Leu Ser Glu
      50             55             60
Met Arg Ala His Ile Arg Thr Cys Gln Lys Tyr Ile Asp Lys Tyr Gly
      65             70             75             80
Pro Leu Gln Glu Leu Glu Glu Thr Ala Ala Arg Cys Val Cys Pro Phe
      85             90             95
Cys Gln Arg Glu Leu Tyr Glu Asp Ser Leu Leu Asp His Cys Ile Thr
      100            105            110
His His Arg Ser Glu Arg Arg Pro Val Phe Cys Pro Leu Cys His Leu
      115            120            125
Ile Pro Asp Glu Asn Pro Ser Ser Phe Ser Gly Ser Leu Ile Arg His

```



130 135 140  
 Leu Gln Val Ser His Thr Leu Val Tyr Asp Asp Phe  
 145 150 155

<210> 325  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 325  
 acgcgtgaag ggaggacgag gaagtaacgg gaagcacaag gccgctgctg gggagatggc  
 60  
 actggagccc cctaggaagc atctcacagg ctgtggccct tggcacgggg atctggggcc  
 120  
 aggtcgagcg caggtctggg tatcatgcga gtgcgggctc gctggggcgg gaaagagttt  
 180  
 ggagctctgc tcccaggga tccccactcc cgcagatgac ttgcccgaga gagttctgct  
 240  
 ggtggatttt gatggaaatt ctatttgatc gcaccactt ggttcactgt gtgcttcagg  
 300  
 gtccccaggt tttaggtgct tcatgcctg ctgggaacga gacacgtcc tgcctcagt  
 360  
 gaatcttcag tcta  
 374

<210> 326  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 326  
 Met Lys His Leu Lys Pro Gly Asp Pro Glu Ala His Ser Glu Pro Ser  
 1 5 10 15  
 Gly Cys Asp Gln Ile Glu Phe Pro Ser Lys Ser Thr Ser Arg Thr Leu  
 20 25 30  
 Ser Gly Lys Ser Ser Ala Gly Val Gly Ile Pro Trp Glu Gln Ser Ser  
 35 40 45  
 Lys Leu Phe Pro Ala Pro Ala Ser Pro His Ser His Asp Thr Gln Thr  
 50 55 60  
 Cys Ala Arg Pro Gly Pro Arg Ser Pro Cys Gln Gly Pro Gln Pro Val  
 65 70 75 80  
 Arg Cys Phe Leu Gly Gly Ser Ser Ala Ile Ser Pro Ala Ala Ala Leu  
 85 90 95  
 Cys Phe Pro Leu Leu Pro Arg Pro Pro Phe Thr Arg  
 100 105

<210> 327  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 327  
 cactataaaa tccagtttgg ggcccgtgtt ctttctatt ggtctgtcag gtgaaaaact  
 60

ccggctgggg gaaaagcgtc cgggtggttg ttggtaaaga gggcgctga tgggctctgg  
 120  
 ggaatggagg atggcgacc ggctgtgggt ggactgtgga aacgggggggt ggcagtgccg  
 180  
 gggtagttgt cctgctggtc tggttttggg atcctgggct ggagaaatgc gatccaaaag  
 240  
 agctcgggat gggctcagag cgaccacga aaataccagg ggccaagtaa aatgaacca  
 300  
 ccctttaaca gtgcacaaag cgctggcaca cgggccacgt ctggtgacgc aggetgcccg  
 360  
 aagcgctcca accattttgc aaacctggga gagcaagagg ggctctgcag gtctagccgc  
 420  
 cgccccctgtc ccactctggc cagccggagt tttcaccta cagaccaata ggaaagaaca  
 480  
 cgggccccaa actggatttt atagtctgag ctctcagcat ctaaggaatg atatgcc  
 538

<210> 328

<211> 125

<212> PRT

<213> Homo sapiens

<400> 328

Met	Val	Gly	Ala	Leu	Arg	Ala	Ala	Cys	Val	Thr	Arg	Arg	Gly	Pro	Cys
1				5					10					15	
Ala	Ser	Ala	Leu	Cys	Thr	Val	Lys	Gly	Trp	Val	His	Phe	Thr	Trp	Pro
			20					25					30		
Leu	Val	Phe	Ser	Trp	Val	Ala	Leu	Ser	Pro	Ser	Arg	Ala	Leu	Leu	Asp
		35					40					45			
Arg	Ile	Ser	Pro	Ala	Gln	Asp	Pro	Lys	Thr	Arg	Pro	Ala	Gly	Gln	Leu
	50					55					60				
Pro	Arg	His	Cys	His	Pro	Pro	Phe	Pro	Gln	Ser	Thr	His	Ser	Arg	Cys
65					70					75				80	
Ala	Ile	Leu	His	Ser	Pro	Glu	Pro	Ile	Thr	His	Pro	Leu	Tyr	Gln	Gln
			85						90					95	
Thr	Thr	Gly	Arg	Phe	Ser	Pro	Ser	Arg	Ser	Phe	Ser	Pro	Asp	Arg	Pro
		100						105					110		
Ile	Gly	Lys	Asn	Thr	Gly	Pro	Lys	Leu	Asp	Phe	Ile	Val			
		115					120					125			

<210> 329

<211> 407

<212> DNA

<213> Homo sapiens

<400> 329

tccggagagt tccctcccca ggaattcctt ctaagaatcc atgtggaaat agagcctgaa  
 60  
 gctcttcagt cttctgtctc cactgagcag tgttttcttg ataccttgg tatectgcc  
 120  
 gcagcctcgt tatgactcct aactccattg cctccatgg cccctgggag ctctctctct  
 180  
 cttctctccc aggtagtaga gcactgettc tggtttcttg tgcacagaag ggtttccac  
 240

agctgagagc tgggctccta ctgacatagt tatttctctt atatectgcc ccaccttctt  
 300  
 ctggtagcac acagcaacct tgcatagtag ctggtatcat taccttccca atcaacaggc  
 360  
 cttgatttct tataggactt tttctctcag atttacattg cttctctt  
 407

<210> 330  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 330  
 Met Ile Pro Ala Thr Met Gln Gly Cys Cys Val Leu Pro Glu Glu Gly  
 1 5 10 15  
 Gly Ala Gly Tyr Lys Gly Asn Asn Tyr Val Ser Arg Ser Pro Ala Leu  
 20 25 30  
 Ser Cys Gly Lys Pro Phe Cys Ala Gln Glu Ala Arg Ser Ser Ala Leu  
 35 40 45  
 Leu Pro Gly Glu Lys Glu Arg Glu Ser Ala Gln Gly Pro Trp Arg Ala  
 50 55 60  
 Met Glu Leu Gly Val Ile Thr Arg Leu Leu Ala Gly Tyr Gln Gly Tyr  
 65 70 75 80  
 Gln Glu Asn Thr Ala Gln Trp Ser Arg Lys Thr Glu Glu Leu Gln Ala  
 85 90 95  
 Leu Phe Pro His Gly Phe Leu Glu Gly Ile Pro Gly Glu Gly Thr Leu  
 100 105 110  
 Arg

<210> 331  
 <211> 523  
 <212> DNA  
 <213> Homo sapiens

<400> 331  
 tgtaccgaac ctgctggtct cgagggcctt gctgggctcg tcgtacgcac agctgacgaa  
 60  
 tccaccggcc cccatcccgg cgccacttct gctgaggcca tggagtcgat cggagccagc  
 120  
 tacgacggat cgcccggtt gcccggaagt cacgtcggcg tcgatgtgcc cgtgacaagg  
 180  
 ttcgacgcag cggtgaact cttcgtcgaa ttgttgaaca ccacgagcct ggttgaagag  
 240  
 gacatcgccc gtcagatcga cgcggcgca gcctccctgg cccagaccag ccagcgcgga  
 300  
 tcggccctag ccgagatggc agcagcacgt ggcctatggc cagtggggtc acggtcgtcc  
 360  
 ctgcccacga tcggtaccct ctcgtcgggt gaaaagctca acgccgcagc cgcacgagaa  
 420  
 ttctgggccc cgcaactggac gatctccgat gccgtgctgg tggttgccgg agagggagtc  
 480  
 gaggacctcg acttgtcaat attcaaggag tggacgacca gct  
 523

<210> 332  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 332  
 Cys Thr Glu Pro Ala Gly Leu Glu Gly Leu Ala Gly Leu Val Val Arg  
 1 5 10 15  
 Thr Ala Asp Glu Ser Thr Gly Pro His Pro Gly Ala Thr Phe Ala Glu  
 20 25 30  
 Ala Met Glu Ser Ile Gly Ala Ser Tyr Asp Gly Ser Ala Gly Leu Ala  
 35 40 45  
 Gly Ser His Val Gly Val Asp Val Pro Val Thr Arg Phe Asp Ala Ala  
 50 55 60  
 Ala Glu Leu Phe Val Glu Leu Leu Asn Thr Thr Ser Leu Val Glu Glu  
 65 70 75 80  
 Asp Ile Ala Arg Gln Ile Asp Ala Ala Arg Ala Ser Leu Ala Gln Thr  
 85 90 95  
 Ser Gln Arg Gly Ser Ala Leu Ala Glu Met Ala Ala Ala Arg Ala Leu  
 100 105 110  
 Trp Pro Val Gly Ser Arg Ser Ser Leu Pro Thr Ile Gly Thr Leu Ser  
 115 120 125  
 Ser Val Glu Lys Leu Asn Ala Ala Ala Arg Glu Phe Trp Ala Ala  
 130 135 140  
 His Trp Thr Ile Ser Asp Ala Val Leu Val Val Ala Gly Glu Gly Val  
 145 150 155 160  
 Glu Asp Leu Asp Leu Ser Ile Phe Lys Glu Trp Thr Thr Ser  
 165 170

<210> 333  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 333  
 nntgttcgtc gtgtcgaccc ggaactcaag gccagggcga tgacggtgaa ggtgccaacc  
 60  
 gatccccatc accgcccggg agttccattg aagtctgcga aggaccgtat ggacatcatt  
 120  
 tctgcttacc gagaactcgg aagctatcgc gccgcagccg aggtgtgcgg caccacccac  
 180  
 aagaccgtca agcgggtggt cgatcgggtt gaagccggcg atccacccac cgggtggcaag  
 240  
 gaacgggccc gcaactacga tgcgggtggcc cagctcgtcg cgcagcgagt cgcgcggtca  
 300  
 cacggccgga tcaactgcaa acggctgcta ccggtagcgc gagcggcagg atatgagggg  
 360  
 tcggcgcgga at  
 372

<210> 334  
 <211> 88  
 <212> PRT

<213> Homo sapiens

<400> 334

```

Met Asp Ile Ile Ser Ala Tyr Arg Glu Leu Gly Ser Tyr Arg Ala Ala
 1           5           10           15
Ala Glu Val Cys Gly Thr Thr His Lys Thr Val Lys Arg Val Val Asp
      20           25           30
Arg Phe Glu Ala Gly Asp Pro Pro Thr Gly Gly Lys Glu Arg Ala Arg
      35           40           45
Asn Tyr Asp Ala Val Ala Gln Leu Val Ala Gln Arg Val Ala Arg Ser
 50           55           60
His Gly Arg Ile Thr Ala Lys Arg Leu Leu Pro Val Ala Arg Ala Ala
65           70           75           80
Gly Tyr Glu Gly Ser Ala Arg Asn
      85

```

<210> 335

<211> 356

<212> DNA

<213> Homo sapiens

<400> 335

```

gtgcacgcct tgctgggcca gggcgatgag cctgcgcgca ccttcgtgga cggtaccttt
60
ggcaggggag ggcattcgag gtcatacttg cagcgggttg ggccgcaagg ccgcctggtg
120
gcgttcgaca aggacaccca agccattcaa gcagcggcgc gcatacagga tgcgcgcttt
180
tccatcnggc accagggggt cagccatctc ggggaactgc ccgcgcccag cgtgtccggt
240
gtgctgctgg acctgggagt gagctccccg cagatcgacg acccccagcg cgggttcagt
300
tttcgtttcg atggtccgct ggacatgcgc atggacacca ctccgatgca tggatg
356

```

<210> 336

<211> 118

<212> PRT

<213> Homo sapiens

<400> 336

```

Val His Ala Leu Leu Gly Glu Gly Asp Ala Pro Ala Arg Thr Phe Val
 1           5           10           15
Asp Gly Thr Phe Gly Arg Gly Gly His Ser Arg Leu Ile Leu Gln Arg
      20           25           30
Leu Gly Pro Gln Gly Arg Leu Val Ala Phe Asp Lys Asp Thr Glu Ala
      35           40           45
Ile Gln Ala Ala Ala Arg Ile Thr Asp Ala Arg Phe Ser Ile Xaa His
 50           55           60
Gln Gly Phe Ser His Leu Gly Glu Leu Pro Ala Ala Ser Val Ser Gly
65           70           75           80
Val Leu Leu Asp Leu Gly Val Ser Ser Pro Gln Ile Asp Asp Pro Gln
      85           90           95
Arg Gly Phe Ser Phe Arg Phe Asp Gly Pro Leu Asp Met Arg Met Asp

```

100  
Thr Thr Pro Met His Gly  
115

105

110

<210> 337  
<211> 447  
<212> DNA  
<213> Homo sapiens

<400> 337  
cagcctctct ccgaccgcgc cgggtgtgaag cacgggcatg ccgggtgtgca agtggcacca  
60  
cagccaaaac agcgagctca cacttcaaac tccttcaaag accccaggcc tctgtaagaa  
120  
ccgctcatct ctgtgccac agtcccccg cttccatgtg acccagaaat ggaaccacgc  
180  
agcagaggcg gggatcacag gtgaagcagc tgtgaacatt tgcttcaggc ttctgtgcaa  
240  
acaggcgcca tcatgtcagc cgggtgagcag gagcaacgtg cgtgggtcag ggggtggcca  
300  
cacgtccaac ttataagaa atgacagatt ccctgatggc catagggatc tgcagggcca  
360  
gcagcaggca taggaattcc ggtggccctg cgtcttcac aacactgagt attgtcaggg  
420  
tttctgtact gtttttacag ccaattg  
447

<210> 338  
<211> 111  
<212> PRT  
<213> Homo sapiens

<400> 338  
Met Pro Val Cys Lys Trp His His Ser Gln Asn Ser Glu Leu Thr Leu  
1 5 10 15  
Gln Thr Pro Ser Lys Thr Pro Gly Leu Cys Lys Asn Arg Ser Ser Leu  
20 25 30  
Cys Pro Gln Leu Pro Arg Phe His Val Thr Gln Lys Trp Asn His Ala  
35 40 45  
Ala Glu Ala Gly Ile Thr Gly Glu Ala Ala Val Asn Ile Cys Phe Arg  
50 55 60  
Leu Leu Cys Lys Gln Ala Pro Ser Cys Gln Pro Val Ser Arg Ser Asn  
65 70 75 80  
Val Arg Gly Ser Gly Gly Gly His Thr Ser Asn Phe Ile Arg Asn Asp  
85 90 95  
Arg Phe Pro Asp Gly His Arg Asp Leu Gln Gly Gln Gln Gln Ala  
100 105 110

<210> 339  
<211> 588  
<212> DNA  
<213> Homo sapiens

<400> 339

tctagaatga agcgctgtat cctagcaccg gcagacgtac caagactatc aagggcgctca  
 60  
 gatcgtttat cctgcagttg ccattcatca gacaaatcca gtggaaccca atggaagaca  
 120  
 ccgacctgca agcgctgatg gccagactcg aattgctaata tgatcggggtc gagcaactta  
 180  
 agagtcaaaa cggactccta ttagctcagg aaaagacctg ggcgcganaa cgcgctcacc  
 240  
 tcattgaaaa aaacgaaatc gcccggcgta aggtcgaatc gatgatttcg cgctgaagg  
 300  
 ccctggagca agactatgag ttaagcaata gcgttacgtg cagatcctcg acaagaata  
 360  
 ttcgatcatc tgccccagg aagaacgcag cacctgggtga gtgctgcccg ctacctggaa  
 420  
 ggccaaaagg cgtgaaatcc gcagcagcgg caaagtcacg ggtgccgacc gcacgcgcgt  
 480  
 gatggccgcg ctgaacatca cccacgatct gctgcataag caggaacggc ctgacgttca  
 540  
 ggccagcggc tcaacgcgcg agcaagtgcg tgacctgctg gaacgcgt  
 588

<210> 340

<211> 123

<212> PRT

<213> Homo sapiens

<400> 340

Met	Glu	Asp	Thr	Asp	Leu	Gln	Ala	Leu	Met	Ala	Arg	Leu	Glu	Leu	Leu
1				5					10					15	
Ile	Asp	Arg	Val	Glu	Gln	Leu	Lys	Ser	Gln	Asn	Gly	Leu	Leu	Leu	Ala
			20					25					30		
Gln	Glu	Lys	Thr	Trp	Ala	Arg	Xaa	Arg	Ala	His	Leu	Ile	Glu	Lys	Asn
		35				40					45				
Glu	Ile	Ala	Arg	Arg	Lys	Val	Glu	Ser	Met	Ile	Ser	Arg	Leu	Lys	Ala
	50					55					60				
Leu	Glu	Gln	Asp	Tyr	Glu	Leu	Ser	Asn	Ser	Val	Thr	Cys	Arg	Ser	Ser
65				70						75				80	
Thr	Lys	Asn	Ile	Arg	Ser	Ser	Ala	Pro	Arg	Lys	Asn	Ala	Ala	Pro	Gly
			85					90					95		
Glu	Cys	Cys	Pro	Leu	Pro	Gly	Arg	Pro	Lys	Gly	Val	Lys	Ser	Ala	Ala
			100					105					110		
Ala	Ala	Lys	Ser	Ser	Val	Pro	Thr	Ala	Ser	Pro					
		115						120							

<210> 341

<211> 401

<212> DNA

<213> Homo sapiens

<400> 341

ngccgcgcgg cctacctgct gtacctggcc tatgccacct ggcgtagccg ctcggccttt  
 60  
 gcaatgaacg acacgccgac agttgcgacc gcgcgcagcc tgatcctgcg tggcttcttg  
 120

ctgaacattc ttaaccccaa gctgacaatt ttcttctgg ccttctgcc tcaattcgta  
 180  
 acgccaggcg gcaccgcgcc ggccttgacg atgctggtac tgagcggcgt gttcatggcg  
 240  
 atgacgcttg cagtgtttgt gctgtatggc ctgttggcga atgtgtttcg tcgtgcagtg  
 300  
 gtcgagtcgc cacgtgtgca gaactggctg cgacgcagtt ttgccacggc ctttgccggg  
 360  
 ctgggggtga acctggcggt tgcgccagcg tgaggacgag t  
 401

<210> 342  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 342  
 Xaa Arg Ala Ala Tyr Leu Leu Tyr Leu Ala Tyr Ala Thr Trp Arg Asp  
 1 5 10 15  
 Arg Ser Ala Phe Ala Met Asn Asp Thr Pro Thr Val Ala Thr Ala Arg  
 20 25 30  
 Ser Leu Ile Leu Arg Gly Phe Leu Leu Asn Ile Leu Asn Pro Lys Leu  
 35 40 45  
 Thr Ile Phe Phe Leu Ala Phe Leu Pro Gln Phe Val Thr Pro Gly Gly  
 50 55 60  
 Thr Ala Pro Ala Leu Gln Met Leu Val Leu Ser Gly Val Phe Met Ala  
 65 70 75 80  
 Met Thr Leu Ala Val Phe Val Leu Tyr Gly Leu Leu Ala Asn Val Phe  
 85 90 95  
 Arg Arg Ala Val Val Glu Ser Pro Arg Val Gln Asn Trp Leu Arg Arg  
 100 105 110  
 Ser Phe Ala Thr Ala Phe Ala Gly Leu Gly Leu Asn Leu Ala Phe Ala  
 115 120 125  
 Gln Arg  
 130

<210> 343  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<400> 343  
 gtgttgcgca actacatggc gtccctgccg ttcagcgtgg tcgagtcggc gcgcacgcac  
 60  
 ggggtgtcca acttcagat cttctggaag ctgacgccc cgatggcgat gccggcgatg  
 120  
 gcggcgcttc cgaccctgca gttcctgtgg gtgtggaacg acctgctcat cgccaagctc  
 180  
 ttctcacca acgacaacc cagggtgatc gtcaagctcc aacagctttc cnnngggccc  
 240  
 aaggcccagg gtgcggagct gctgacggcg ggcgccttca tctccatcgt gctacccatg  
 300  
 atcgtcttct tcgtgtcca gaacttctg gtgcgcggta tgacgtcggg tgccgtcaag  
 360



gggtgaccgc tcaactgcag tggcccggg  
389

<210> 344

<211> 121

<212> PRT

<213> Homo sapiens

<400> 344

Val	Leu	Arg	Asn	Tyr	Met	Ala	Ser	Leu	Pro	Phe	Ser	Val	Val	Glu	Ser
1			5					10				15			
Ala	Arg	Ile	Asp	Gly	Cys	Ser	Asn	Phe	Gln	Ile	Phe	Trp	Lys	Leu	Ile
	20						25					30			
Ala	Pro	Met	Ala	Met	Pro	Ala	Met	Ala	Ala	Phe	Ala	Thr	Leu	Gln	Phe
	35					40						45			
Leu	Trp	Val	Trp	Asn	Asp	Leu	Leu	Ile	Ala	Lys	Leu	Phe	Leu	Thr	Asn
	50				55						60				
Asp	Asn	Pro	Thr	Val	Ile	Val	Lys	Leu	Gln	Gln	Leu	Ser	Xaa	Gly	Pro
65				70					75					80	
Lys	Ala	Gln	Gly	Ala	Glu	Leu	Leu	Thr	Ala	Gly	Ala	Phe	Ile	Ser	Ile
			85						90					95	
Val	Leu	Pro	Met	Ile	Val	Phe	Phe	Val	Leu	Gln	Asn	Phe	Leu	Val	Arg
			100					105					110		
Gly	Met	Thr	Ser	Gly	Ala	Val	Lys	Gly							
			115				120								

<210> 345

<211> 360

<212> DNA

<213> Homo sapiens

<400> 345

ctagtacttt atgctgatgg tgaacgtcgt tacatccttg cccctaaagg catggttgct  
60  
ggtgatgtga tccaatctgg tgaagatgca tcaattaaag taggtaactg cttaccgatg  
120  
cgtaatatcc cagttggtac aacagtacac gctgtagaaa tgaaacctgc taaagggtgca  
180  
caaattgcac gttctgctgg ttcttacagc caaattatag ctgctgatgg tgcttacggt  
240  
actctacggt tacgtagtgg tgaaatgcgt aaaatccctg ctgagtgtcg tgcaacaatc  
300  
ggtgaagttg gtaatgcaga acatatgcta cgtcaactag gtaaagctgg tgctacgcgt  
360

<210> 346

<211> 120

<212> PRT

<213> Homo sapiens

<400> 346

Leu	Val	Leu	Tyr	Ala	Asp	Gly	Glu	Arg	Arg	Tyr	Ile	Leu	Ala	Pro	Lys
1				5					10					15	
Gly	Met	Val	Ala	Gly	Asp	Val	Ile	Gln	Ser	Gly	Glu	Asp	Ala	Ser	Ile

```

      20      25      30
Lys Val Gly Asn Cys Leu Pro Met Arg Asn Ile Pro Val Gly Thr Thr
      35      40      45
Val His Ala Val Glu Met Lys Pro Ala Lys Gly Ala Gln Ile Ala Arg
      50      55      60
Ser Ala Gly Ser Tyr Ser Gln Ile Ile Ala Arg Asp Gly Ala Tyr Val
      65      70      75      80
Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Ile Pro Ala Glu Cys
      85      90      95
Arg Ala Thr Ile Gly Glu Val Gly Asn Ala Glu His Met Leu Arg Gln
      100      105      110
Leu Gly Lys Ala Gly Ala Thr Arg
      115      120

```

<210> 347  
 <211> 565  
 <212> DNA  
 <213> Homo sapiens

```

<400> 347
accggtgatg ccaaaggtgc tgtgacaagg ggattcatcg gttcgggcaa ggtcgtcacg
60
gcagctgccc tcatcatgat ttcggtgttc gtcttcttca tccccgaggg catgaacgcc
120
atcaaggaaa tcgccctggc cctggccgtc gggatcctca cggatgcctt cttggtgcgg
180
atgaccctcg tccccgccgt gatggccctg ctaggtgaca aggcattggtg gttgcccggg
240
tggtgtgatc gacgcctacc ccgcctcgac atcgagggag aagggatcac ccacgaggaa
300
aagctggccg cctggcccac agcggatcac accgaggccc tgcacgccga ggggatcggg
360
gtggaggggc tcttcgaagg cctcgatctg cacgtcgaac cgcgtcaggt gcaagccgtc
420
gtcggatcgc agaacagtgt ctcgccgctc ctgctggcga tcgggggacg gctgcccttg
480
gatcacggcc ggatgaggtc gggaggattg ctgctacctg agcgggcttc cagagtgcgt
540
cgggtgacgt ggttcctcga cgcgt
565

```

<210> 348  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

```

<400> 348
Thr Gly Asp Ala Lys Gly Ala Val Thr Arg Gly Phe Ile Gly Ser Gly
1      5      10      15
Lys Val Val Thr Ala Ala Ala Val Ile Met Ile Ser Val Phe Val Phe
20      25      30
Phe Ile Pro Glu Gly Met Asn Ala Ile Lys Glu Ile Ala Leu Ala Leu
35      40      45
Ala Val Gly Ile Leu Thr Asp Ala Phe Leu Val Arg Met Thr Leu Val

```

```

      50              55              60
Pro Ala Val Met Ala Leu Leu Gly Asp Lys Ala Trp Trp Leu Pro Gly
65              70              75              80
Trp Leu Asp Arg Arg Leu Pro Arg Leu Asp Ile Glu Gly Glu Gly Ile
      85              90              95
Thr His Glu Glu Lys Leu Ala Ala Trp Pro Thr Ala Asp His Thr Glu
      100             105             110
Ala Leu His Ala Glu Gly Ile Gly Val Glu Gly Leu Phe Glu Gly Leu
      115             120             125
Asp Leu His Val Glu Pro Arg Gln Val Gln Ala Val Val Gly Ser Gln
      130             135             140
Asn Ser Val Ser Ala Val Leu Leu Ala Ile Gly Gly Arg Leu Pro Leu
145             150             155             160
Asp His Gly Arg Met Arg Ser Gly Gly Leu Leu Leu Pro Glu Arg Ala
      165             170             175
Ser Arg Val Arg Arg Val Thr Trp Phe Leu Asp Ala
      180             185

```

&lt;210&gt; 349

&lt;211&gt; 339

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 349

```

ntgctggcca cggataatga ccgtactctg cgtgatgtcg ttgccgctga ccctacccat
60
gagctcggtt cggctaccgc tcatacgttt gcggacaatt tgccgttcct tcttaaactg
120
ctcgcggcag aagagccact atcgttgcag gctcatccca gtttggcgca agcacaggaa
180
gggtacgggc gggagaatcg caaaggggtg ccattagatg cccagaccg gaattaccac
240
gatcccaacc ataaaccgga gcttattggtt gggctgacgc gattccacgc actagccggc
300
ttccgtgaac cacaacgcac acttgagctt ttgacgcg
339

```

&lt;210&gt; 350

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 350

```

Xaa Leu Ala Thr Asp Asn Asp Arg Thr Leu Arg Asp Val Val Ala Ala
1              5              10              15
Asp Pro Thr His Glu Leu Gly Ser Ala Thr Ala His Thr Phe Ala Asp
      20              25              30
Asn Leu Pro Phe Leu Leu Lys Leu Leu Ala Ala Glu Glu Pro Leu Ser
      35              40              45
Leu Gln Ala His Pro Ser Leu Ala Gln Ala Gln Glu Gly Tyr Gly Arg
      50              55              60
Glu Asn Arg Lys Gly Val Pro Leu Asp Ala Pro Asp Arg Asn Tyr His
65              70              75              80
Asp Pro Asn His Lys Pro Glu Leu Ile Val Gly Leu Thr Arg Phe His

```

85 90 95  
 Ala Leu Ala Gly Phe Arg Glu Pro Gln Arg Thr Leu Glu Leu Phe Asp  
 100 105 110  
 Ala

<210> 351  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 351  
 gcgcgccccca gtgccgagac ccggggcttc aggagccggc cccgggagag aagagtgcgg  
 60  
 cggcggacgg agaaaacaac tccaaagttg gcgaaaggca ccgccctac tcccgggctg  
 120  
 ccgcgcctc cccgccccca gccctggcat ccagagtacg ggtcgagccc gngggcatgg  
 180  
 agccccctg gggaggcggc accagggagc ctgggccccg gggctccgcc gcgaccccat  
 240  
 cgggtagacc acagaagctc cgggaccett ccggcacctc tggacagccc aggatgctgt  
 300  
 tggccaccn ntctctctc tctccttgg aggcgtctg gcccatccag accg  
 354

<210> 352  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 352  
 Ala Arg Pro Ser Ala Glu Thr Arg Gly Phe Arg Ser Arg Pro Arg Glu  
 1 5 10 15  
 Arg Arg Val Arg Arg Arg Thr Glu Lys Thr Thr Pro Lys Leu Ala Lys  
 20 25 30  
 Gly Thr Ala Pro Thr Pro Gly Leu Pro Pro Pro Pro Arg Pro Gln Pro  
 35 40 45  
 Trp His Pro Glu Tyr Gly Ser Ser Pro Xaa Pro Trp Ser Pro Pro Gly  
 50 55 60  
 Glu Ala Ala Pro Gly Ser Leu Gly Pro Gly Ala Pro Pro Arg Pro His  
 65 70 75 80  
 Arg Val Asp His Arg Ser Ser Gly Thr Leu Pro Ala Pro Leu Asp Ser  
 85 90 95  
 Pro Gly Cys Cys Trp Pro Pro Xaa Pro Pro Pro Pro Pro Trp Arg Arg  
 100 105 110  
 Ser Gly Pro Ser Arg Pro  
 115

<210> 353  
 <211> 1469  
 <212> DNA  
 <213> Homo sapiens

<400> 353

nntcatgaag gcttgaactt gcgatgatctt cagcctgcgg acctggcggg tgacggcggt  
60  
attgagccgg tggacctcgt ggtcggagat gtctctttta tctccttgac gatgatecctt  
120  
gaacccattt cagctgttgt cagccacac ggcctcatgc tgttgctggt gaagcctcaa  
180  
tttgagggtg gttgcaaggc tttgggagcc catggcggtg tcacggaccc ggccctgcgc  
240  
ttgcaggcca tcgcgggtgt catggcagca gcggtagatt tgggttgycg tatgcgtgac  
300  
gagtgcgata gcccggttgc cgggcaggat ggaaacgttg agcacttcgt cttgctggaa  
360  
cgtacgggtc ggtgacagac gtccgggcat atcatgggcc gctactgtgg tcttgtaac  
420  
gacacgagcc cttegagata cgttgctgct gtcacccatg ccacgcggga cgacgctttt  
480  
gacggcgctg ccgaattcat ctctgaaatg gggggcgag acattggttg cgcggttcg  
540  
gatgatcagg tgaagccgat gtcaagcaag ctgccaggga tcgatcttga aagcttgga  
600  
gagttcgccc acgaggcgga ggtggctgct gtctttggcg gcgacggcac gatcttgca  
660  
gctgctgaat ggtcattacc tcgccacgtt cccatgattg gcgtcaacct tggccatgct  
720  
ggttttcttg ctgagctgga gcgctccgat atggcgatc tagtgaacaa ggtgtgttcg  
780  
cgcgactaca ccgttgagga tcgcctcgtg cttaaaacca ccgtcaccga gcattccgga  
840  
caacacggtt ggagttcttt tgccgtcaac gagttgtctc tggaaaaggc agcccggcgg  
900  
cgcgtgctg acgttctggc gtctgtcgac gagttgccgg tgcaacgctg gagttgcgac  
960  
gggaccttg tctcgacccc gaccggatcg acggcctacg cgttctcagc tggcgccccg  
1020  
gtcatgtggc ccgatctcga cgcctatgct atggtgccgt tgagcgtca cgtctctttt  
1080  
gtcgcagcgc tggatcatgag ccagctgct cgagtggacc ttgacatcca gccagacggt  
1140  
tcagaatcgg cggttctgtg gtgcgacggg cgcgcatcgt gcaccgtacg accgggggaa  
1200  
agaatcacg tcgtccgcca tcccagcgt ctgcgcattg ctgctctggc cgcgcagccc  
1260  
ttcacatcgc gtctggtaaa gaagtttgag ctcccggta gcgggtggcg tcagggtcgt  
1320  
gaccgtcacc acctagagga gacttcgtga tacgtagtgt gcgaattcgt ggactcggcg  
1380  
tcategatga gacggtcctc gaacctcat ccgcgctgac ggcagtcacc ggcgagaccg  
1440  
gcgccggaaa gaccatggtg gtcacgggt  
1469

&lt;210&gt; 354

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

```

Met Gly Arg Tyr Cys Gly Leu Val Asn Asp Thr Ser Pro Ser Arg Tyr
 1           5           10           15
Val Val Val Val Thr His Ala Thr Arg Asp Asp Ala Phe Asp Ala Ala
      20           25           30
Ala Glu Phe Ile Ser Glu Met Ala Gly Arg Asp Ile Gly Cys Ala Val
      35           40           45
Pro Asp Asp Gln Val Lys Pro Met Ser Ser Lys Leu Pro Gly Ile Asp
 50           55           60
Leu Glu Ser Leu Gly Glu Phe Ala His Glu Ala Glu Val Val Val Val
65           70           75           80
Phe Gly Gly Asp Gly Thr Ile Leu Arg Ala Ala Glu Trp Ser Leu Pro
      85           90           95
Arg His Val Pro Met Ile Gly Val Asn Leu Gly His Val Gly Phe Leu
      100          105          110
Ala Glu Leu Glu Arg Ser Asp Met Ala Asp Leu Val Asn Lys Val Cys
      115          120          125
Ser Arg Asp Tyr Thr Val Glu Asp Arg Leu Val Leu Lys Thr Thr Val
130          135          140
Thr Glu His Ser Gly Gln His Arg Trp Ser Ser Phe Ala Val Asn Glu
145          150          155          160
Leu Ser Leu Glu Lys Ala Ala Arg Arg Arg Met Leu Asp Val Leu Ala
      165          170          175
Ser Val Asp Glu Leu Pro Val Gln Arg Trp Ser Cys Asp Gly Ile Leu
      180          185          190
Val Ser Thr Pro Thr Gly Ser Thr Ala Tyr Ala Phe Ser Ala Gly Gly
      195          200          205
Pro Val Met Trp Pro Asp Leu Asp Ala Met Leu Met Val Pro Leu Ser
210          215          220
Ala His Ala Leu Phe Ala Arg Pro Leu Val Met Ser Pro Ala Ala Arg
225          230          235          240
Val Asp Leu Asp Ile Gln Pro Asp Gly Ser Glu Ser Ala Val Leu Trp
      245          250          255
Cys Asp Gly Arg Arg Ser Cys Thr Val Arg Pro Gly Glu Arg Ile Thr
      260          265          270
Val Val Arg His Pro Asp Arg Leu Arg Ile Ala Arg Leu Ala Ala Gln
      275          280          285
Pro Phe Thr Ser Arg Leu Val Lys Lys Phe Glu Leu Pro Val Ser Gly
      290          295          300
Trp Arg Gln Gly Arg Asp Arg His His Leu Glu Glu Thr Ser
305          310          315

```

&lt;210&gt; 355

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

```

nggatccac ctctggaat ggaaaccac ataccagttc tcttctcga tttgaatgcg
60
gatgacctca gtgccaatga gcagcttggt ggccccatg catccggcgt gaactccatc
120

```

ctgcccaagg agcatggcag ccagtttttc tacctgcccc tcataaagca cagtgatgat  
 180  
 gaggtttcag ccacagcctc ttgggattcc tcggtgcatg attctgttca cttgaatggg  
 240  
 gtcacaccac agaatgaaag gatttaccta attgtgaaaa ccacagttca actcagccac  
 300  
 cctgctgcta tggagttagt attacgaaaa cgaattgcag ccaatattta caacaaacag  
 360  
 agtttcacgc agagtttgaa gaggagaata tcctgaaaa atatatttta ttctgtggg  
 420  
 gtaacctatg aaatagtatc caatatacca aaggcaactg aggagataga ggaccgggaa  
 480  
 acgctggctc tcctggcagc aaggagttaa aacgaaggca catcagatgg gaagacgtac  
 540  
 attgagaagt acactcga  
 558

<210> 356

<211> 186

<212> PRT

<213> Homo sapiens

<400> 356

Xaa	Ile	Pro	Pro	Pro	Gly	Met	Glu	Thr	His	Ile	Pro	Val	Leu	Phe	Leu
1				5					10				15		
Asp	Leu	Asn	Ala	Asp	Asp	Leu	Ser	Ala	Asn	Glu	Gln	Leu	Val	Gly	Pro
		20				25						30			
His	Ala	Ser	Gly	Val	Asn	Ser	Ile	Leu	Pro	Lys	Glu	His	Gly	Ser	Gln
		35				40						45			
Phe	Phe	Tyr	Leu	Pro	Ile	Ile	Lys	His	Ser	Asp	Asp	Glu	Val	Ser	Ala
	50				55				60						
Thr	Ala	Ser	Trp	Asp	Ser	Ser	Val	His	Asp	Ser	Val	His	Leu	Asn	Gly
65				70					75				80		
Val	Thr	Pro	Gln	Asn	Glu	Arg	Ile	Tyr	Leu	Ile	Val	Lys	Thr	Thr	Val
			85					90					95		
Gln	Leu	Ser	His	Pro	Ala	Ala	Met	Glu	Leu	Val	Leu	Arg	Lys	Arg	Ile
		100					105					110			
Ala	Ala	Asn	Ile	Tyr	Asn	Lys	Gln	Ser	Phe	Thr	Gln	Ser	Leu	Lys	Arg
		115				120					125				
Arg	Ile	Ser	Leu	Lys	Asn	Ile	Phe	Tyr	Ser	Cys	Gly	Val	Thr	Tyr	Glu
	130				135					140					
Ile	Val	Ser	Asn	Ile	Pro	Lys	Ala	Thr	Glu	Glu	Ile	Glu	Asp	Arg	Glu
145			150					155					160		
Thr	Leu	Ala	Leu	Leu	Ala	Ala	Arg	Ser	Glu	Asn	Glu	Gly	Thr	Ser	Asp
			165				170						175		
Gly	Lys	Thr	Tyr	Ile	Glu	Lys	Tyr	Thr	Arg						
		180					185								

<210> 357

<211> 323

<212> DNA

<213> Homo sapiens

<400> 357

acgcgtgcgt gtgttggtg agtcgggtgt gtgcatgcgt gtgggtgtgc agcaggtggg  
 60  
 gtacgatcag gctgaaggct gatcaggcac aaggctctgg gggagagccc tggttccagc  
 120  
 cctgggggtca gagcagcagg ggccagaaag acggcagggg tgagcactgc acccgctggg  
 180  
 cagggcaggg ccacagaagg cagggcatgg agggcacgtg aagggttga cagagtggat  
 240  
 ggatgtctcc ggaagcacct gcgtggccca gtcagcagga tcagactcgc atgtgtcagg  
 300  
 gtcaccatgg gtcagcgagg atn  
 323

&lt;210&gt; 358

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 358

Met	Val	Thr	Leu	Thr	His	Ala	Ser	Leu	Ile	Leu	Leu	Thr	Gly	Pro	Arg
1				5					10					15	
Arg	Cys	Phe	Arg	Arg	His	Pro	Ser	Thr	Leu	Ser	Ser	Pro	Ser	Arg	Gly
			20					25					30		
Leu	His	Ala	Leu	Pro	Ser	Val	Ala	Leu	Pro	Cys	Pro	Ala	Gly	Ala	Val
			35				40					45			
Leu	Thr	Pro	Ala	Val	Phe	Leu	Ala	Pro	Ala	Ala	Leu	Thr	Pro	Gly	Leu
			50				55				60				
Glu	Pro	Gly	Leu	Ser	Pro	Arg	Ala	Leu	Cys	Leu	Ile	Ser	Leu	Gln	Pro
						70				75				80	
Asp	Arg	Thr	Pro	Pro	Ala	Ala	His	Pro	His	Ala	Cys	Thr	His	Pro	Thr
				85				90					95		
His	Thr	Thr	His	Ala	Arg										
															100

&lt;210&gt; 359

&lt;211&gt; 265

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 359

acgcgtaccg acaagcgccc ggtgatggcc gaccttcgcg aatcgggccc aatcgagcag  
 60  
 gatcgggaca tgatcgtctt catctaccgc gacgattact acaacaagga aaattcgccc  
 120  
 gacaaggggc tggccgagat catcatcggc aagcatcggg ggggccccac cggctcgtgc  
 180  
 aagctgaagt tcttcggcga gtacaccggt ttcgacaacc tggcccacaa ctcggttggt  
 240  
 tcgttcgaat aacggatgat tccgg  
 265

&lt;210&gt; 360

&lt;211&gt; 83

&lt;212&gt; PRT



<213> Homo sapiens

<400> 360

```

Thr Arg Thr Asp Lys Arg Pro Val Met Ala Asp Leu Arg Glu Ser Gly
 1           5           10           15
Ala Ile Glu Gln Asp Ala Asp Met Ile Val Phe Ile Tyr Arg Asp Asp
          20           25           30
Tyr Tyr Asn Lys Glu Asn Ser Pro Asp Lys Gly Leu Ala Glu Ile Ile
          35           40           45
Ile Gly Lys His Arg Gly Gly Pro Thr Gly Ser Cys Lys Leu Lys Phe
          50           55           60
Phe Gly Glu Tyr Thr Arg Phe Asp Asn Leu Ala His Asn Ser Val Gly
65           70           75           80
Ser Phe Glu

```

<210> 361

<211> 453

<212> DNA

<213> Homo sapiens

<400> 361

```

gctttgcagg aggaaatctc tatctctggc tgcaagatga ggctgagcta cctgagcagc
60
cggacccctg gctacaaatc tgtcctgagg atcagcctca cccacccgac catcccttc
120
aacctcatga aggtgcacct catggtagcg gtggagggcc gcctcttcag gaagtggttc
180
gctgcagccc cagacctgtc ctattatttc atttgggaca agacagacgt ctacaaccag
240
aaggtgtttg ggctttcaga agcctttgtt tccgtgggtt atgaatatga atcctgccca
300
gatctaatac tgtgggaaaa aagaacaaca gtgctgcagg gctatgaaat tgacgcgtcc
360
aagcttgagg gatggagcct agacaaacat catgccctca acattcaaag tggcatcctg
420
cacaagggga atgngagaa ccagtttgtg tct
453

```

<210> 362

<211> 151

<212> PRT

<213> Homo sapiens

<400> 362

```

Ala Leu Gln Glu Glu Ile Ser Ile Ser Gly Cys Lys Met Arg Leu Ser
 1           5           10           15
Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Ser Val Leu Arg Ile Ser
          20           25           30
Leu Thr His Pro Thr Ile Pro Phe Asn Leu Met Lys Val His Leu Met
          35           40           45
Val Ala Val Glu Gly Arg Leu Phe Arg Lys Trp Phe Ala Ala Ala Pro
          50           55           60
Asp Leu Ser Tyr Tyr Phe Ile Trp Asp Lys Thr Asp Val Tyr Asn Gln

```

```

65          70          75          80
Lys Val Phe Gly Leu Ser Glu Ala Phe Val Ser Val Gly Tyr Glu Tyr
          85          90          95
Glu Ser Cys Pro Asp Leu Ile Leu Trp Glu Lys Arg Thr Thr Val Leu
          100          105          110
Gln Gly Tyr Glu Ile Asp Ala Ser Lys Leu Gly Gly Trp Ser Leu Asp
          115          120          125
Lys His His Ala Leu Asn Ile Gln Ser Gly Ile Leu His Lys Gly Asn
          130          135          140
Gly Glu Asn Gln Phe Val Ser
145          150

```

&lt;210&gt; 363

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 363

```

ggtacacaaa aagtttgcca cagtattcac actccaggtc tccataaacc ttccagatcc
60
gctcacacaa gctggtgttc atttgcttct tctgtaaact gttcaggacc ttcataaaag
120
cgggtgatgcc tgaccgggtgc tcaggggagc ctttgcaaga gtcaggctga tgtgtgatgg
180
tgtccccacc accagctact ggagggagga ggtctgagga ctcagctggg ttgacctga
240
gacacctgct gggatctggg tcaccagctg aaagcacagc catgtttctgc ctttccccta
300
gggggctctg ggcgccatgg ctttcctgat ctgaccacgc actctggggc ttggacagca
360
gtagtgtgat cacttcacct tgcgtctgga ctgagcttct gtgctgcatt tctgggggct
420
tctcaggagc agcatgagcc tctgcggagg aggtatcatt tttcaacaaa aaatcatctg
480
aaaccacctc ttgagaatgc ag
502

```

&lt;210&gt; 364

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 364

```

Met Gln His Arg Ser Ser Val Gln Thr Gln Gly Glu Val Ile Thr Leu
1          5          10          15
Leu Leu Ser Lys Ala Gln Ser Ala Gly Ser Asp Gln Glu Ser His Gly
          20          25          30
Ala Gln Ser Pro Leu Gly Glu Gly Gln Asn Met Ala Val Leu Ser Ala
          35          40          45
Gly Asp Pro Asp Pro Ser Arg Cys Leu Arg Ser Asn Pro Ala Glu Ala
          50          55          60
Ser Asp Leu Leu Pro Pro Val Ala Gly Gly Gly Asp Thr Ile Thr His
65          70          75          80
Gln Pro Asp Ser Cys Lys Ala Ala Pro Glu His Arg Ser Gly Ile Thr

```

	85		90		95										
Ala	Phe	Met	Lys	Val	Leu	Asn	Ser	Leu	Gln	Lys	Lys	Gln	Met	Asn	Thr
		100						105					110		
Ser	Leu	Cys	Glu	Arg	Ile	Trp	Lys	Val	Tyr	Gly	Asp	Leu	Glu	Cys	Glu
		115					120					125			
Tyr	Cys	Gly	Lys	Leu	Phe	Trp	Tyr								
		130				135									

&lt;210&gt; 365

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 365

atctcaacgg atgcatccat caaggagatg atccccccag gtgctcttgt tatgtcaca  
60  
ccactgatcg ttgggattct atttgggggtt gagacctct ctggagtctt tgctgggtgcc  
120  
cttgtctctg gtgttcagat tgccatttct gcatccaaca ctgggtgggtgc ctgggacaac  
180  
gccaagaagt acattgaggc tggagtttca gagcatgccca ggaccttgg cccaaaaggt  
240  
tctgacctc acaaggcggc tgctattggt gacaccattg gagatcctct caaggacacg  
300  
tctggccctt cctcaacat cctcatcaag ctt  
333

&lt;210&gt; 366

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 366

Ile	Ser	Thr	Asp	Ala	Ser	Ile	Lys	Glu	Met	Ile	Pro	Pro	Gly	Ala	Leu
1				5					10					15	
Val	Met	Leu	Thr	Pro	Leu	Ile	Val	Gly	Ile	Leu	Phe	Gly	Val	Glu	Thr
			20					25					30		
Leu	Ser	Gly	Val	Leu	Ala	Gly	Ala	Leu	Val	Ser	Gly	Val	Gln	Ile	Ala
		35				40						45			
Ile	Ser	Ala	Ser	Asn	Thr	Gly	Gly	Ala	Trp	Asp	Asn	Ala	Lys	Lys	Tyr
		50				55				60					
Ile	Glu	Ala	Gly	Val	Ser	Glu	His	Ala	Arg	Thr	Leu	Gly	Pro	Lys	Gly
65				70					75					80	
Ser	Asp	Pro	His	Lys	Ala	Ala	Val	Ile	Gly	Asp	Thr	Ile	Gly	Asp	Pro
			85					90					95		
Leu	Lys	Asp	Thr	Ser	Gly	Pro	Ser	Leu	Asn	Ile	Leu	Ile	Lys	Leu	
			100					105					110		

&lt;210&gt; 367

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 367

gcgttcgctg cactacccgg cggcggcgga acccttgacg agctactcga agcatggaca  
60  
tggcagcagc tcggtgtaca cagcaaaccg gtgngccttg tacgactcga cnncttctgg  
120  
gcaccgctga ccgcgctact caaccacatg accatcgaaa gcttcattcg ccctgaggac  
180  
cgcgcctcgc tcgtgatcgc cgataccata catcagctga tggccgatct tgagggatgg  
240  
accccaccac caccgaagtg gcgctcgtga catagaacaa atgattctga ctatggctca  
300  
ttgacatctg cgcagcggct actagctcca ttgacttcaa atcgggcctt ggccgaggct  
360  
cngttcaggt ggcccgaat g  
381

&lt;210&gt; 368

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 368

Ala	Phe	Val	Ala	Leu	Pro	Gly	Gly	Gly	Gly	Thr	Leu	Asp	Glu	Leu	Leu
1				5				10					15		
Glu	Ala	Trp	Thr	Trp	Gln	Gln	Leu	Gly	Val	His	Ser	Lys	Pro	Val	Xaa
		20					25					30			
Leu	Val	Arg	Leu	Asp	Xaa	Phe	Trp	Ala	Pro	Leu	Thr	Ala	Leu	Leu	Asn
		35				40				45					
His	Met	Thr	Ile	Glu	Ser	Phe	Ile	Arg	Pro	Glu	Asp	Arg	Ala	Ser	Leu
	50				55					60					
Val	Ile	Ala	Asp	Thr	Ile	His	Gln	Leu	Met	Ala	Asp	Leu	Glu	Gly	Trp
65				70				75				80			
Thr	Pro	Pro	Pro	Pro	Lys	Trp	Arg	Ser							
				85											

&lt;210&gt; 369

&lt;211&gt; 313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 369

gatacatgat cctctcatat cgcacacaca ccgtccctct ctgccgcaat tcgcagacaa  
60  
acttgccgag gcttcacagc aagccgtcaa ggctgcttcc tgtgggctac cgatagtctc  
120  
gtacgcgagt tctcggacat caacgccaac gtcgggcaag atactgtcaa cgccatctac  
180  
acattctacg agcagcaagc gaccagtctt cttcgccagc tgaacgacct cccacccgaa  
240  
gagcttcccg acgtcatcga ggacttcttc cgcctgtcca ctgatgtcct tctttaccat  
300  
ttccagcaag ctt  
313

&lt;210&gt; 370

<211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 370  
 Ser Ser His Thr Ala His Thr Pro Leu Pro Ser Ala Ala Ile Arg Arg  
 1 5 10 15  
 Gln Thr Cys Ala Gly Phe Thr Ala Ser Arg Gln Gly Cys Phe Leu Trp  
 20 25 30  
 Ala Thr Asp Ser Leu Val Arg Glu Phe Ser Asp Ile Asn Ala Asn Val  
 35 40 45  
 Gly Gln Asp Thr Val Asn Ala Ile Tyr Thr Phe Tyr Glu Gln Gln Ala  
 50 55 60  
 Thr Ser Phe Leu Arg Gln Leu Asn Asp Leu Pro Pro Glu Glu Leu Pro  
 65 70 75 80  
 Asp Val Ile Glu Asp Phe Phe Arg Leu Ser Thr Asp Val Leu Leu Tyr  
 85 90 95  
 His Phe Gln Gln Ala  
 100

<210> 371  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 371  
 atgacgggtc acgtcatcct ggcgattcca caggtggtga cgtcatggat cggcctcatc  
 60  
 tgcategcca ttggcacggg ctttatcaag ccgaacctct ccacgggtggg aggaggtctt  
 120  
 tacgatgacg gtgacccccg ccgcgatcag ggtttcctgt acttctacat gtcgatcagt  
 180  
 attggatctc tcttcgcgcc gatcgtcacc ggctcctca aggaccatta cggctaccac  
 240  
 gtaggtttca ttgccgtgc tatcggtatg gctctgggtc tgatcgctt cttccacggg  
 300  
 cgttccaaac tgcgtgagct cgccttcgac atccccaatc cgctggcccc cggcgagggt  
 360  
 cgccggatgg tgctccgagg  
 380

<210> 372  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 372  
 Met Thr Gly His Val Ile Leu Ala Ile Pro Gln Val Val Thr Ser Trp  
 1 5 10 15  
 Ile Gly Leu Ile Cys Ile Ala Ile Gly Thr Gly Phe Ile Lys Pro Asn  
 20 25 30  
 Leu Ser Thr Val Val Gly Gly Leu Tyr Asp Asp Gly Asp Pro Arg Arg  
 35 40 45  
 Asp Gln Gly Phe Leu Tyr Phe Tyr Met Ser Ile Ser Ile Gly Ser Leu

```

      50              55              60
Phe Ala Pro Ile Val Thr Gly Leu Leu Lys Asp His Tyr Gly Tyr His
65              70              75              80
Val Gly Phe Ile Ala Ala Ala Ile Gly Met Ala Leu Gly Leu Ile Ala
      85              90              95
Phe Phe His Gly Arg Ser Lys Leu Arg Glu Leu Ala Phe Asp Ile Pro
      100              105              110
Asn Pro Leu Ala Pro Gly Glu Gly Arg Arg Met Val Leu Arg
      115              120              125

```

&lt;210&gt; 373

&lt;211&gt; 475

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 373

```

acatgttgga aaaattgcct ccactctgg tgctacaggt atgaatctca gccacagtga
60
tgactgtggc agctacaggc ctgatgaaca cccaccaag aaaaggagca tcatgtgcct
120
gcttctctct ggttcctaaa tcctttggcc aaacatttcc cccacaaccc tccactccag
180
ttggctgggc actgcctctc agaaagaagt ccaggtccc tgtcagcccc agagcgctg
240
catggactct gccactgtc cctttccaac acggaggccc ccaattctgg ggacccctac
300
accctaccct gtaccaccac atccccatgc ctgctccaga cagcactaac ctcccatgac
360
agtgggacca aagcagttct taaaggcca atccactcag ttcttaaatg aaaaacagtt
420
gcccatgagt ccccccaaa gacgtccgca catatgccaa acattcggtg tgcac
475

```

&lt;210&gt; 374

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 374

```

Met Gly Met Trp Trp Tyr Arg Val Gly Cys Arg Gly Pro Gln Asn Trp
1      5      10      15
Gly Pro Pro Cys Trp Lys Gly Thr Val Gly Arg Val His Ala Gly Ala
      20      25      30
Leu Gly Leu Thr Gly Thr Trp Asp Phe Phe Leu Arg Gly Ser Asp Gln
      35      40      45
Pro Thr Gly Val Glu Gly Cys Gly Glu Asn Val Trp Pro Lys Asp Leu
      50      55      60
Gly Thr Arg Glu Lys Gln Ala His Asp Ala Pro Phe Leu Gly Gly Val
65      70      75      80
Phe Ile Arg Pro Val Ala Ala Thr Val Ile Thr Val Ala Glu Ile His
      85      90      95
Thr Cys Ser Thr Arg Val Gly Gly Asn Phe Ser Asn Met
      100      105

```

<210> 375  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 375  
 nnacgcgtcg cctccacctc gaaacccgcc ggcggtcggt ttttcaccat ggccgaccgc  
 60  
 aaggcccaag ttgcgacggt caccgacacg ctgtatttca cgccgctcgca atgggatgga  
 120  
 tgcattggcac ggatgcgtgg ggataagata tcagcactga agtggaatca gatgcagatg  
 180  
 gcggcatgct ccttcatagc ggcaagtgggt gcgaagctgg gctgcccgcg gcgcactatg  
 240  
 ggcaaggcgc agctgctgta ccagcgtttc catctatttc atgcgccgac tgagttttcg  
 300  
 ttacatgagg tggctttgac gtgtctcttc ac  
 332

<210> 376  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 376  
 Xaa Arg Val Ala Ser Thr Ser Lys Pro Ala Gly Gly Arg Phe Phe Thr  
 1 5 10 15  
 Met Ala Asp Arg Lys Ala Gln Val Ala Thr Val Thr Asp Thr Leu Tyr  
 20 25 30  
 Phe Thr Pro Ser Gln Trp Asp Gly Cys Met Ala Arg Met Arg Gly Asp  
 35 40 45  
 Lys Ile Ser Ala Leu Lys Trp Asn Gln Met Gln Met Ala Ala Cys Ser  
 50 55 60  
 Phe Ile Ala Ala Val Gly Ala Lys Leu Gly Cys Pro Gln Arg Thr Met  
 65 70 75 80  
 Gly Thr Ala Gln Leu Leu Tyr Gln Arg Phe His Leu Phe His Ala Pro  
 85 90 95  
 Thr Glu Phe Ser Leu His Glu Val Ala Leu Thr Cys Leu Phe  
 100 105 110

<210> 377  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 377  
 cgcgtgccag gtatgtcaac tgatctgtcg gatatttccg aggttgagta ccgtcaactg  
 60  
 aggctggaac gactgggtgct gtgttcgggtg tggactcagg gaactgccgc agacgccgag  
 120  
 aacgctatgg cggagctgaa agcccttgct gaaacggcgg gatctcaggt actcgaagct  
 180  
 gtcattgcaac gtcggactac cccggatccg gcgacgtaca ttggttcggg caaggtggct  
 240

gagcttgccg aggtgggtgcg ggcgactggt gccgatactg tcatttgtga cgggtgaactt  
 300  
 gacgccgctc agttgcgcaa cctcgaggat cgggtcaagn gcaaagttgt ggaccgggtcg  
 360  
 gtctgattc  
 369

<210> 378  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 378  
 Arg Val Pro Gly Met Ser Thr Asp Leu Ser Asp Ile Ser Glu Val Glu  
 1 5 10 15  
 Tyr Arg Gln Leu Arg Leu Glu Arg Val Val Leu Cys Ser Val Trp Thr  
 20 25 30  
 Gln Gly Thr Ala Ala Asp Ala Glu Asn Ala Met Ala Glu Leu Lys Ala  
 35 40 45  
 Leu Ala Glu Thr Ala Gly Ser Gln Val Leu Glu Ala Val Met Gln Arg  
 50 55 60  
 Arg Thr Thr Pro Asp Pro Ala Thr Tyr Ile Gly Ser Gly Lys Val Ala  
 65 70 75 80  
 Glu Leu Ala Glu Val Val Arg Ala Thr Gly Ala Asp Thr Val Ile Cys  
 85 90 95  
 Asp Gly Glu Leu Asp Ala Ala Gln Leu Arg Asn Leu Glu Asp Arg Val  
 100 105 110  
 Lys Xaa Lys Val Val Asp Arg Ser Val  
 115 120

<210> 379  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 379  
 acgcgttact taaacttatac tgtaaataat aaattcatta tttctagttg gtttaggtact  
 60  
 atgggctgtg gtttaccagg tgctatggca gctaaaattg cttatccaaa ccgtcaagca  
 120  
 gtagctatca caggcgacgg tgcgttccaa atggtaatgc aagactttgc tacagctgtt  
 180  
 caatataact taccaatgac aatctttgta ttaaataaca aacaattgtc attcatta  
 240  
 tatgaacaac aagctgctgg tgaattagag tatgccattg atttctctga tatggatcat  
 300  
 gctaaaattg ctgaagctgc tgggtgtaaa ggctatgttg tgagagatgt aagtcgtctt  
 360  
 gacgacatcg ttgaagaggc aatggctcaa gatgttccaa caatcggt  
 408

<210> 380  
 <211> 136  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 380

```

Thr Arg Tyr Leu Asn Leu Ser Val Asn Asn Lys Phe Ile Ile Ser Ser
 1           5           10           15
Trp Leu Gly Thr Met Gly Cys Gly Leu Pro Gly Ala Met Ala Ala Lys
 20           25           30
Ile Ala Tyr Pro Asn Arg Gln Ala Val Ala Ile Thr Gly Asp Gly Ala
 35           40           45
Phe Gln Met Val Met Gln Asp Phe Ala Thr Ala Val Gln Tyr Asn Leu
 50           55           60
Pro Met Thr Ile Phe Val Leu Asn Asn Lys Gln Leu Ser Phe Ile Lys
 65           70           75           80
Tyr Glu Gln Gln Ala Ala Gly Glu Leu Glu Tyr Ala Ile Asp Phe Ser
 85           90           95
Asp Met Asp His Ala Lys Phe Ala Glu Ala Ala Gly Gly Lys Gly Tyr
 100          105          110
Val Val Arg Asp Val Ser Arg Leu Asp Asp Ile Val Glu Glu Ala Met
 115          120          125
Ala Gln Asp Val Pro Thr Ile Val
 130          135

```

&lt;210&gt; 381

&lt;211&gt; 613

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 381

```

naccggtcat aggcggggccc agtgggaagac cacgccaaca cagttgggtg agatccgcgt
60
tgaggggcaag gtccctgcgcg tcccgcgaaa tctgggtcaag gcctaccact ctgggctgat
120
cgacgtcgag gactgaaccc tgggagcctg ggcgggtccag catgactgct caggctcatt
180
accaaaacgc gtcgatcccg taggggtgtc gtcatgagca agcccgaagt gaccctgccc
240
gattccgccc ccgacgacct cgtcgttgag gacatcacca tcggcgacgg cccctgaagcg
300
tccgctggca acctcgtcga agtgcaactac gtcggcggtg ccttaagcaa tggctgtgag
360
ttcgattctt cctggaaccg cggggagccg ctgaccttcc aactaggggc tggccagggtg
420
atccccgagt gggatgaagg tgtccaaggt atgaaggctg gtggacgacg caaactcgtc
480
atccccacc accttgctta cgggtccgcaa ggaatctccg gtgtgatcgc tggcgggtgag
540
acgtggtct tcgtctgca ccttgtaac atcatctgac gtgacccccg ctcaagcagt
600
cttcgcgccc ggg
613

```

&lt;210&gt; 382

&lt;211&gt; 137

&lt;212&gt; PRT

<213> Homo sapiens

<400> 382

```

Leu Leu Arg Leu Ile Thr Lys Thr Arg Arg Ser Arg Arg Val Val Val
 1           5           10           15
Met Ser Lys Pro Glu Val Thr Leu Pro Asp Ser Ala Pro Asp Asp Leu
      20           25           30
Val Val Glu Asp Ile Thr Ile Gly Asp Gly Pro Glu Ala Ser Ala Gly
      35           40           45
Asn Leu Val Glu Val His Tyr Val Gly Val Ala Leu Ser Asn Gly Arg
 50           55           60
Glu Phe Asp Ser Ser Trp Asn Arg Gly Glu Pro Leu Thr Phe Gln Leu
65           70           75           80
Gly Ala Gly Gln Val Ile Pro Glu Trp Asp Glu Gly Val Gln Gly Met
      85           90           95
Lys Val Gly Gly Arg Arg Lys Leu Val Ile Pro His His Leu Ala Tyr
      100          105          110
Gly Pro Gln Gly Ile Ser Gly Val Ile Ala Gly Gly Glu Thr Leu Val
      115          120          125
Phe Val Cys Asp Leu Val Asn Ile Ile
      130          135

```

<210> 383

<211> 352

<212> DNA

<213> Homo sapiens

<400> 383

```

nggagcaaca cctggctcctt gggaatgaag tgtaggagtt gcatttgctg aggttggtgt
60
ttgccaaaga gatgccagct tcttcgaact actgctgtgc aactcttcat gttcaaaacc
120
cagttttctg tttttcacac ctgaacatac acccccctgc agttgggtgg ctcccccggt
180
accagctggg ctctatctac agagagagca atggcttccc ttccttgaa ggaagtctca
240
ccctcacaag gacattgat ccgctgcaaa gcagaaagtg tgcggaccct ttgggaaggg
300
cgttcttttc ttgttagaa cctaggattc tgttttccc aaacaggatc an
352

```

<210> 384

<211> 93

<212> PRT

<213> Homo sapiens

<400> 384

```

Met Pro Ala Ser Ser Asn Tyr Cys Cys Ala Thr Leu His Val Gln Asn
 1           5           10           15
Pro Val Phe Cys Phe Ser His Leu Asn Ile His Pro Pro Ala Val Gly
      20           25           30
Trp Leu Pro Arg Tyr Gln Leu Gly Ser Ile Tyr Arg Glu Ser Asn Gly
      35           40           45
Phe Pro Ser Leu Glu Gly Ser Leu Thr Leu Thr Arg Thr Leu Asp Pro

```

50                      55                      60  
 Leu Gln Ser Arg Lys Cys Ala Asp Pro Leu Gly Arg Ala Phe Phe Ser  
 65                      70                      75                      80  
 Cys Leu Glu Pro Arg Ile Leu Phe Phe Pro Asn Arg Ile  
                     85                      90

<210> 385  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<400> 385  
 gccggcgcca cgaaatgcaa aatgcgccct tcaccggacg ccaggttgat cgagccgcca  
 60  
 gcacctcggg caatgtcctg ggcctgactg gcacacgcaa tcaaagcgag caacaacaca  
 120  
 caaaaacgca tcatgaggca gacgccaggg aagtgcagca agccgcagca ggcgcgcggc  
 180  
 gattggaaat atcgggtgagg ctaatggtca ccagcgcttg caggttgat tcggtggcca  
 240  
 attcgcgga cgacagcacc gccagttcca gctcgccgag cagcaccagg cgacgaagc  
 300  
 tgccggcgcaa ctccgggtgc accaacaaca ccgcactgtt ca  
 342

<210> 386  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 386  
 Met Gln Asn Ala Pro Phe Thr Gly Arg Gln Val Asp Arg Ala Ala Ser  
 1                      5                      10                      15  
 Thr Ser Gly Asn Val Leu Gly Leu Thr Gly Thr Arg Asn Gln Ser Glu  
                     20                      25                      30  
 Gln Gln His Thr Lys Thr His His Glu Ala Asp Ala Arg Glu Val Thr  
                     35                      40                      45  
 Glu Ala Ala Ala Gly Ala Arg Arg Leu Glu Ile Ser Val Arg Leu Met  
                     50                      55                      60  
 Val Thr Ser Ala Cys Arg Leu Tyr Ser Val Ala Asn Ser Arg Asn Asp  
 65                      70                      75                      80  
 Ser Thr Ala Ser Ser Ser Ser Pro Arg Ser Thr Arg Arg Arg Lys Leu  
                     85                      90                      95  
 Arg Arg Asn Ser Gly Cys Thr Asn Asn Thr Ala Leu Phe  
                     100                      105

<210> 387  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 387  
 acgcgtgacg cgccggcatc ggaagcgttg actgcagaga agaccgcgca cgtggctgtg  
 60

ggacgtgctg gcacgtctga catggtgctg ggacccgcct tctcttcgcc tgcgcacgcc  
 120  
 atgcaagagg agcttgacaa tgtgctgat ctgcccacg cgcgccagca agcgctcgat  
 180  
 gctgttcgtt ccgagctgct cgaagcgcag caagcatgtg cctcgtgcc gctgcagctg  
 240  
 cagcatgtgc cagatgatcg tgtgcgagcg catcccatat accaggcgct ccatgcggac  
 300  
 gttgcttaca tgcagcaaga acttgatcac gtacgagacg cattggcttc ggcagaatct  
 360  
 gagaatgcga gcttgcgcg  
 379

&lt;210&gt; 388

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 388

Met	Arg	Leu	Val	Arg	Asp	Gln	Val	Leu	Ala	Ala	Cys	Lys	Gln	Arg	Pro
1			5					10					15		
His	Gly	Ala	Pro	Gly	Ile	Trp	Asp	Ala	Leu	Ala	His	Asp	His	Leu	Ala
		20					25					30			
His	Ala	Ala	Ala	Ala	Ala	Gly	Thr	Arg	His	Met	Leu	Ala	Ala	Leu	Arg
		35				40					45				
Ala	Ala	Arg	Asn	Glu	Gln	His	Arg	Ala	Leu	Ala	Ala	Ala	His	Gly	Arg
		50				55					60				
Asp	His	Ala	His	Cys	Gln	Ala	Pro	Leu	Ala	Trp	His	Ala	Gln	Ala	Lys
65					70					75				80	
Arg	Arg	Arg	Val	His	Ala	Pro	Cys	Gln	Thr	Cys	Gln	His	Val	Pro	Gln
			85					90					95		
Pro	Arg	Ala	Arg	Ser	Ser	Leu	Gln	Ser	Thr	Leu	Pro	Met	Pro	Ala	Arg
		100					105						110		

His Ala

&lt;210&gt; 389

&lt;211&gt; 382

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 389

ngatggccga ctgtccact gtcagtacgc gaagctcgcc gtcgagtcgg tccacgtccg  
 60  
 ggccctccac gtgtccgca accctccgaa gcgatgacct ggcccggggg cggcaacgag  
 120  
 gtattgcgtt tggagacgct tgggggtcaat tacggccagg tgcgcgccgt cgatgccctg  
 180  
 acgaccaccg tagagcgcgg caccatcacc tgcctcatgg gtcgaaatgg atcaggcaag  
 240  
 tcgtctctga tgtgggcat ccaaggggca acaaagtcct cagggagggt actggtcaac  
 300  
 caagagggtt cttgggctga cccccgaaa gccgacgccg cgaccgctcg acgaatggtg  
 360

agcttagtcc cgcagtcagc cn  
382

<210> 390  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 390  
Xaa Trp Pro Thr Val Pro Leu Ser Val Arg Glu Ala Arg Arg Arg Val  
1 5 10 15  
Gly Pro Arg Pro Gly Leu Pro Arg Ala Pro Gln Pro Ser Glu Ala Met  
20 25 30  
Thr Trp Pro Gly Gly Gly Asn Glu Val Leu Arg Leu Glu Thr Leu Gly  
35 40 45  
Val Asn Tyr Gly Gln Val Arg Ala Val Asp Ala Leu Thr Thr Thr Val  
50 55 60  
Glu Arg Gly Thr Ile Thr Cys Leu Met Gly Arg Asn Gly Ser Gly Lys  
65 70 75 80  
Ser Ser Leu Met Trp Ala Ile Gln Gly Ala Thr Lys Ser Ser Gly Arg  
85 90 95  
Val Leu Val Asn His Glu Gly Ser Trp Ala Asp Pro Arg Lys Ala Asp  
100 105 110  
Ala Ala Thr Ala Arg Arg Met Val Ser Leu Val Pro Gln Ser Ala  
115 120 125

<210> 391  
<211> 456  
<212> DNA  
<213> Homo sapiens

<400> 391  
nnacgcgttg ccgctctgtg aggcgcctat cacgggtgaca ctctcgggtgc tatgagcgtg  
60  
tgcgacccta tcggtggcat gcacgccttg ttcagcgact ctattcccca gcagatcttc  
120  
ctgccgcgc cctccttctt tcgccgccga cgaggccgac gtggagacgt ggtgcagcga  
180  
ggccgatgaa tcctggacac ccaccgcgac gacctggccg ggatcattgt cgagcccatc  
240  
ttgcaaggag cgggaggcat gtggccgtgg tctccgtcct gtctgaagca cctgcgcgt  
300  
cgtgctgatg aacttgacct agttcttata gccgacgagg tcgctactgg atttgggcgg  
360  
actggcaaac ttttcgcatg cgagtgggcc gatatcgttc ctgacatcat ggtgggtggg  
420  
aatccatga ctggcgata cctgaccag tcggcc  
456

<210> 392  
<211> 55  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 392

Gly Ala Tyr His Gly Asp Thr Leu Gly Ala Met Ser Val Cys Asp Pro  
 1 5 10 15  
 Ile Gly Gly Met His Ala Xaa Phe Ser Asp Ser Ile Pro Gln Gln Ile  
 20 25 30  
 Phe Leu Pro Ala Pro Ser Phe Phe Arg Arg Arg Arg Gly Arg Arg Gly  
 35 40 45  
 Asp Val Val Gln Arg Gly Arg  
 50 55

&lt;210&gt; 393

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 393

nacgcgttgc tcgtcattgg tggctactcg gcctacgaag gtatctacac catgatgact  
 60  
 gagcgggacc ggtacccggc ttcccgatt cgcacgggtg gcatcccggc ttctatcgac  
 120  
 aacaacctcc ccggttcgga actgtccatc ggcaccgaca ccgctctcaa cgtcatcgtc  
 180  
 gaggcgatgg acaagattaa ggagtcgggt atcgcgcca gacgtgctt cgtcgctgag  
 240  
 acgatgggtc gtgactgcgg atacctcgcg ttgatgtcgg gtatcgagc tggcgctgag  
 300  
 cggatctata ccaacgagga cggatctccc ctggacgac tagccaacga cgtccattgg  
 360  
 ttgcgggagt c  
 371

&lt;210&gt; 394

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

Xaa Ala Leu Leu Val Ile Gly Gly Tyr Ser Ala Tyr Glu Gly Ile Tyr  
 1 5 10 15  
 Thr Met Met Thr Glu Arg Asp Arg Tyr Pro Ala Phe Arg Ile Pro Thr  
 20 25 30  
 Val Cys Ile Pro Ala Ser Ile Asp Asn Asn Leu Pro Gly Ser Glu Leu  
 35 40 45  
 Ser Ile Gly Thr Asp Thr Ala Leu Asn Val Ile Val Glu Ala Met Asp  
 50 55 60  
 Lys Ile Lys Glu Ser Gly Ile Ala Ser Arg Arg Cys Phe Val Val Glu  
 65 70 75 80  
 Thr Met Gly Arg Asp Cys Gly Tyr Leu Ala Leu Met Ser Gly Ile Ala  
 85 90 95  
 Ala Gly Ala Glu Arg Ile Tyr Thr Asn Glu Asp Gly Ile Ser Leu Asp  
 100 105 110  
 Asp Leu Ala Asn Asp Val His Trp Leu Arg Glu  
 115 120

<210> 395  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 395  
 gaattctagt tgggagattc attgaccaga cttttggaat aaacactagt catcatgcta  
 60  
 gcgacagggtg gtcttggtgca tggtagaaag gcagtccaag cctatgtctc tgaaacctgc  
 120  
 tctcatttct gttttctact ttacgattta tgttatctca tactcccat gttgectgtt  
 180  
 ctccagtttt ttacttggtg ttatttccat tcttctattc ctgctcaatt tctgcctcag  
 240  
 ggcagaattg tgtccaacag ctcttaaag cagcgcagaa actgtgatgt taaaaacatc  
 300  
 ttgttatccg gccccaaaac atgttgctct tggtaactct tactgggttg t  
 351

<210> 396  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 396  
 Met Val Glu Arg Gln Ser Lys Pro Met Ser Leu Lys Pro Ala Leu Ile  
 1 5 10 15  
 Ser Val Phe Tyr Phe Thr Ile Tyr Val Ile Ser Tyr Ser Pro Cys Cys  
 20 25 30  
 Leu Phe Ser Ser Phe Phe Thr Cys Val Ile Ser Ile Leu Leu Phe Leu  
 35 40 45  
 Leu Asn Phe Cys Leu Arg Ala Glu Leu Cys Pro Thr Ala Leu Lys Cys  
 50 55 60  
 Ser Ala Glu Thr Val Met Leu Lys Thr Ser Cys Tyr Pro Ala Pro Lys  
 65 70 75 80  
 His Val Val Leu Gly Asn Ser Tyr Trp Phe  
 85 90

<210> 397  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 397  
 gccgtcatta aagagatcac ccctctcctc caacctggtg atgtcctcgt cgacggtggt  
 60  
 aatgcttatt ttggtgatac ccgccgcgt gaggaggaaa tacgtccac cggcattcac  
 120  
 tatgttggtg ctggcatctc cgggtggggga gtcggggccc tgagggtccc atcaattatg  
 180  
 cctggcgggg ttaaggaatc ttacgaaatc atcggaccgg tcttagaaaa aatctccgcc  
 240  
 cacgtcgacg gtgaaccctg ctgcgcatgg atgggtactg acggcgccgg acacttcgtc  
 300

aagatgggtcc ataatggcat cgagtacgcc gatatgcagt tcattggcga ggcgcccttc  
 360  
 ctttttgcgn tgcccgccgg ttgaccaat gctgaggccg ccgatgcctt cgagtctgtg  
 420  
 aaccatggcg acctcaattc ctacctctc gaaatcactt ctgggtact gcgtgccaaag  
 480  
 gat  
 483

<210> 398

<211> 161

<212> PRT

<213> Homo sapiens

<400> 398

Ala	Val	Ile	Lys	Glu	Ile	Thr	Pro	Leu	Leu	Gln	Pro	Gly	Asp	Val	Leu
1			5					10					15		
Val	Asp	Gly	Gly	Asn	Ala	Tyr	Phe	Gly	Asp	Thr	Arg	Arg	Arg	Glu	Glu
		20						25					30		
Glu	Ile	Arg	Pro	Thr	Gly	Ile	His	Tyr	Val	Gly	Thr	Gly	Ile	Ser	Gly
		35					40					45			
Gly	Gly	Val	Gly	Ala	Leu	Arg	Val	Pro	Ser	Ile	Met	Pro	Gly	Gly	Val
	50					55					60				
Lys	Glu	Ser	Tyr	Glu	Ile	Ile	Gly	Pro	Val	Leu	Glu	Lys	Ile	Ser	Ala
65				70					75					80	
His	Val	Asp	Gly	Glu	Pro	Cys	Cys	Ala	Trp	Met	Gly	Thr	Asp	Gly	Ala
			85						90					95	
Gly	His	Phe	Val	Lys	Met	Val	His	Asn	Gly	Ile	Glu	Tyr	Ala	Asp	Met
		100						105					110		
Gln	Phe	Ile	Gly	Glu	Ala	Pro	Phe	Leu	Phe	Ala	Xaa	Pro	Ala	Gly	Leu
		115					120					125			
Thr	Asn	Ala	Glu	Ala	Ala	Asp	Ala	Phe	Glu	Ser	Trp	Asn	His	Gly	Asp
	130					135						140			
Leu	Asn	Ser	Tyr	Leu	Val	Glu	Ile	Thr	Ser	Arg	Val	Leu	Arg	Ala	Lys
145				150						155				160	

Asp

<210> 399

<211> 314

<212> DNA

<213> Homo sapiens

<400> 399

nngggaatga agaccacca gcccttcctt tctcctcctt ttctccaggc ttctgtgcat  
 60  
 gggtcatcca cccatccact cattcaccca tctatccatc cactcatcca cccatccagt  
 120  
 cattcactca ttgttccatc cactcatgta cccatccact cattcgccca tttatccatc  
 180  
 cactcaacca tccatccatc caccatcca nctcatcctc cgtccagtca cccatctatc  
 240  
 caccatgta tccatccact catccacca tccatccatc tgtccatcca cttatccacc  
 300



catctactca ccca  
314

<210> 400  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 400  
Xaa Gly Met Lys Thr Thr Gln Pro Phe Leu Ser Ser Asn Leu Leu Gln  
1 5 10 15  
Ala Ser Val His Gly Ser Ser Thr His Pro Leu Ile His Pro Ser Ile  
20 25 30  
His Pro Leu Ile His Pro Ser Ser His Ser Leu Ile Cys Pro Ser Thr  
35 40 45  
His Val Pro Ile His Ser Phe Ala His Leu Ser Ile His Ser Thr Ile  
50 55 60  
His Ser Ser Thr His Pro Xaa His His Pro Ser Ser His Pro Ser Ile  
65 70 75 80  
His Pro Cys Ile His Pro Leu Ile His Pro Ser Thr His Leu Ser Ile  
85 90 95  
His Leu Ser Thr His Leu Leu Thr  
100

<210> 401  
<211> 2165  
<212> DNA  
<213> Homo sapiens

<400> 401  
gagaaaatgg aactacctgt atataaatta ggtgagcaaa cagtgatata ggtagtttta  
60  
agaagcaaat atatacagtc aatttaacag tgtttacttc tctggattgt ttaatgggtg  
120  
caaaatgaaa gatctattga agtttactta tacattgcat tgattgaacc ttggagagtt  
180  
ttatgaaaaa gaggggcatc ccttgccatc tgtttgccag tcttccttgc ccttccttt  
240  
gaaatgcctg cctctttttt gccagattg tttcctgacc atccgaactc agatggggtc  
300  
ctctaagttc ttcttgata ttcacaaatc ccttcacaag gccacgtgc gaagtgaatg  
360  
atctggaggt gcctgggcat ctgtgttga agggagtcaa gactcaccag ccagtcagtt  
420  
tgtgggctac agttgtccca caaaaatcag gcatgttcac ctcccctctg ggcccctaca  
480  
gctgggactg atcatagcct cagattagaa gaaatactga cttctaactc tataagccag  
540  
cactcctggg taaggagtga agctctgttg gccatgccgc tttggactgc tgggcagagc  
600  
tgagcctaca gttttgtact ggggtgcacg gatgacagct gggaagatgg aaaggcagct  
660  
tgaggattta tagcagctaa agggtaaag ctgttatgca aaaggcccc atatgaactt  
720

cctacaggtg tagccgcagc caagtgtctg tacagctgct gagaatttgt cggatgatga  
780  
aaaattcctc ttgcatcac aagcgagtgg aaagccaggg gctgcatgag tggagaaagc  
840  
acagtctggt ttttcaagta ctgcagagaa tgagaatacc cagccgggag cctggagttg  
900  
aggcccgagt tacacaggct cccggaatac agacctggga agatagggga ggagagggga  
960  
agcttgtggc cttttgatcc gcccccgaa tgcccaccgt gcgctgcttt gctgccttca  
1020  
tctcctgctc agaggccttc tccttcccag agacctcctt ggatgggtct aaggagaca  
1080  
ctgcccgggc ctttttccct gcaatcaca ggtccaaatc ctccaggctg cgcttgatcg  
1140  
gccgcgccgc cccaatgttc tacgggtcct ttttccggtg caggattggg tggaccatgc  
1200  
cttccatctt cctgaaatc tccagtctca catggtgagg ttttctgat cttgaaagcg  
1260  
attcagggtg ttttttaggg cctgacatgg tcatgggtga taccgacag gctttgggt  
1320  
gacagtctcg actctggctg cctaagacct ggaactggga gatgccttg ctctcctggg  
1380  
gccttgtggt ggaatgagcc aggcccagga ccttgccggt aggtttgtgc gggttcttgg  
1440  
gaaggctcag atctgtaggc tgatcatccg taggggcttc tgctgccgc gacttttgt  
1500  
cttgacagtg cagggacgtg agataattta catggagctt ttcttgggtg ctgtgggaag  
1560  
gaaaagaact gttttccgat tcctgtaca tgtccctgga aggtatttg gatgtctgtt  
1620  
cattatgaag atggtgctcg gtgtgtctgt agaggctatg gagatgaggg gacgagtaga  
1680  
agtcagccag gaagctaggc atgtgggaat gggggagggc cttttctct aagagtttat  
1740  
ccttgccctc ctgaatttct tgcttcagga cgtaggagtc agcaagggg ttaaggatg  
1800  
gcttgagaa gctgcagcgg tgggatctg atcgactcag tttctcatgc ttaaagatg  
1860  
cattgatggc ctttctctct tccgagggtc tgcttctgaa actctggacg tgctgaatca  
1920  
ctgatggcgc gctgaccgcc atatggtcag tgctttggcc atggtgggtc tgggacaaac  
1980  
tggaacacaa gtcaccccta gcaatcagtt tctttttgct gatcaaaggg ggtggggagc  
2040  
cataagggta gctgctggag aggctggccc cactcacttg ggacaaaagc ttttcttgg  
2100  
ccagtgggga catcatgcct gggttgcccc tagagtagag caggggcgtg taattaagtc  
2160  
catgg  
2165

&lt;210&gt; 402

&lt;211&gt; 87

&lt;212&gt; PRT

<213> Homo sapiens

<400> 402

```

Glu Tyr Pro Ala Gly Ser Leu Glu Leu Arg Pro Glu Leu His Arg Leu
 1           5           10           15
Pro Glu Tyr Arg Pro Gly Lys Ile Gly Glu Glu Arg Gly Ser Leu Trp
      20           25           30
Pro Phe Asp Pro Pro Pro Glu Cys Pro Pro Cys Ala Ala Leu Leu Pro
      35           40           45
Ser Ser Pro Ala Gln Arg Pro Ser Pro Ser Gln Arg Pro Pro Trp Met
      50           55           60
Gly Leu Arg Glu Thr Leu Pro Gly Pro Phe Ser Leu Gln Ser Gln Gly
65           70           75           80
Pro Asn Pro Pro Gly Cys Ala
      85

```

<210> 403

<211> 369

<212> DNA

<213> Homo sapiens

<400> 403

```

cccatgggtg tgtcccagga cggcgctcatg aagcgtcagg taaatgacaa ggaaacggtc
60
gcgcacttgt tcgaatacac gacgcaagtg tctgtcgact cgacgccgca actcgctccag
120
ccttcgcccga cgtcgcacga caacctcgtg cctgtccaga tgatcttttg cttcaagcag
180
cgcaacgcga aaaagatcaa tagccaccgc tgggtatttc atgcactggg ccgcatgcta
240
cagcccgcaca tggctgtctt ggtggacgtc ggcacgaagc cgggccacct cgccctatac
300
catctatggc aggcattcta tcaccgacct accttgggcg gtgcttgcg cgaaattcat
360
gctatgatc
369

```

<210> 404

<211> 123

<212> PRT

<213> Homo sapiens

<400> 404

```

Pro Met Gly Val Ser Gln Asp Gly Val Met Lys Arg Gln Val Asn Asp
 1           5           10           15
Lys Glu Thr Val Ala His Leu Phe Glu Tyr Thr Thr Gln Val Ser Val
      20           25           30
Asp Ser Thr Pro Gln Leu Val Gln Pro Ser Pro Thr Ser His Asp Asn
      35           40           45
Leu Val Pro Val Gln Met Ile Phe Cys Phe Lys Gln Arg Asn Ala Lys
      50           55           60
Lys Ile Asn Ser His Arg Trp Val Phe His Ala Leu Gly Arg Met Leu
65           70           75           80
Gln Pro Asp Met Val Val Leu Val Asp Val Gly Thr Lys Pro Gly His

```

85 90 95  
 Leu Ala Leu Tyr His Leu Trp Gln Ala Phe Tyr His Arg Pro Thr Leu  
 100 105 110  
 Gly Gly Ala Cys Gly Glu Ile His Ala Met Ile  
 115 120

&lt;210&gt; 405

&lt;211&gt; 840

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 405

gaattccgc gcaccagctc gaagctggag cactttgtgt ctatcctgct gaagtgttc  
 60  
 gactcgccct ggaccacgag ggccctgtcg gagacagtgg tggaggagag cgaccccaag  
 120  
 ccggccttca gcaagatgaa tgggtccatg gacaaaaagt catcgaccgt cagtgaggac  
 180  
 gtggaggcca ccgtgcccac gctgcagcgg accaagtcac ggatcgagca gggatatctg  
 240  
 gaccgctcag agacgggctg gctggacaag aaggaggggg agcaagccaa ggcgctgttt  
 300  
 gagaagggtga agaagttccg gacccatgtg gaggaggggg acattgtgta ccgcctctac  
 360  
 atgcggcaga ccatcatcaa ggtgatcaag ttcactctca tcactctgta caccgtctac  
 420  
 tacgtgcaca acatcaagtt cgacgtggac tgcaccgtgg acattgagag cctgacgggc  
 480  
 taccgcacct accgctgtgc ccacccctg gccacactct tcaagatcct ggcgtccttc  
 540  
 tacatcagcc tagtcatctt ctacggcctc atctgcatgt atacactgtg gtggatgcta  
 600  
 cggcgctccc tcaagaagta ctcgtttgag tcgatccgtg aggagagcag ctacagcgac  
 660  
 atccccgacg tcaagaacga cttcgccttc atgctgcacc tcattgacca atacgacccg  
 720  
 ctctactcca agcgcttcgc cgtcttctctg tcggaggtga gtgagaacaa gctgcggcag  
 780  
 ctgaacctca acaacgagtg gacgctggac aagctccggt acggagagaa gacaacgcgt  
 840

&lt;210&gt; 406

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 406

Leu Ile Cys Met Tyr Thr Leu Trp Trp Met Leu Arg Arg Ser Leu Lys  
 1 5 10 15  
 Lys Tyr Ser Phe Glu Ser Ile Arg Glu Glu Ser Ser Tyr Ser Asp Ile  
 20 25 30  
 Pro Asp Val Lys Asn Asp Phe Ala Phe Met Leu His Leu Ile Asp Gln  
 35 40 45  
 Tyr Asp Pro Leu Tyr Ser Lys Arg Phe Ala Val Phe Leu Ser Glu Val

50                      55                      60  
 Ser Glu Asn Lys Leu Arg Gln Leu Asn Leu Asn Glu Trp Thr Leu  
 65                      70                      75                      80  
 Asp Lys Leu Arg Tyr Gly Glu Lys Thr Thr Arg  
                     85                      90

<210> 407  
 <211> 535  
 <212> DNA  
 <213> Homo sapiens

<400> 407  
 gcctattgta ccagctctcc agggctgggg acttgctaga gcagggttcc cagtgcctcc  
 60  
 aggcctctact ttgctctgcc tggctctcagg gtgtagggga tggagagctg gacttccagg  
 120  
 ctgcttcttg gctgtctagg ggccaggggc tcgggacaca gagctcctgg aggccgagca  
 180  
 caagccttgg gcagaggtga ggcagagctc tgactgtttc attcgactac gttgccaaagg  
 240  
 agatgctcgc tcggagtggg tgctctggct ctgggattcc aaaccaagct gccttctctg  
 300  
 atgtggcctt agtgctctgg gcggatgtac cttggctctg cctggaccct ctctctcttc  
 360  
 caggcctctg tcccaccagg atgatgccta tccagagctc attgtcctct cccacttctc  
 420  
 ccccgagctt cccattccgt gtctctctgg agggcccatc atcatcctgg tggaggtgtt  
 480  
 gcactgagga ccacagcagc cctcgcattc ccacgggcaa aggggtatgt gtagg  
 535

<210> 408  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 408  
 Met Leu Ala Arg Ser Gly Cys Ser Gly Ser Gly Ile Pro Asn Gln Ala  
 1                      5                      10                      15  
 Ala Phe Ser Asp Val Ala Leu Val Leu Trp Ala Asp Val Pro Trp Leu  
                     20                      25                      30  
 Cys Leu Asp Pro Leu Ser Leu Pro Gly Leu Cys Pro Thr Arg Met Met  
                     35                      40                      45  
 Pro Ile Gln Ser Ser Leu Ser Ser Pro Thr Ser Ser Pro Ser Phe Pro  
                     50                      55                      60  
 Phe Arg Val Ser Leu Glu Gly Pro Ser Ser Ser Trp Trp Arg Cys Cys  
 65                      70                      75                      80  
 Thr Glu Asp His Ser Pro Arg Ile Pro Thr Gly Lys Gly Val Cys  
                     85                      90                      95  
 Val

<210> 409  
 <211> 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

nggtcatggt gtgtctatac cagcgatgag gccagactg ccaagacttt tggatttggg  
 60  
 ggacttcgga ttacgactaa tatttctctt gccacaact tcaatatgga tgaaatttct  
 120  
 gatattgtct tccgtgtcaa tgataccagt ttgacaccaa ctgtgggacc agaattagct  
 180  
 agaaaattga ccgaaattgc tggctctcag caaggggagt atcaggtgtc agatgcgact  
 240  
 gcagccttcc aagaagtgca acaattgttc ggctttataa ctacgattat tagtgccatt  
 300  
 gcaggaattt ccctttttgt tggagggact ggtgttatga acatcatgct ggtttcgggtg  
 360  
 acggagcgta cgcgt  
 375

&lt;210&gt; 410

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

Xaa	Val	Met	Gly	Val	Tyr	Thr	Ser	Asp	Glu	Ala	Lys	Thr	Ala	Lys	Thr
1				5					10					15	
Phe	Gly	Ile	Gly	Gly	Leu	Pro	Ile	Thr	Asn	Ile	Ser	Leu	Ala	Asn	
			20					25				30			
Asn	Phe	Asn	Met	Asp	Glu	Ile	Ser	Asp	Ile	Val	Phe	Arg	Val	Asn	Asp
		35					40					45			
Thr	Ser	Leu	Thr	Pro	Thr	Val	Gly	Pro	Glu	Leu	Ala	Arg	Lys	Leu	Thr
	50					55					60				
Glu	Ile	Ala	Gly	Leu	Gln	Gln	Gly	Glu	Tyr	Gln	Val	Ser	Asp	Ala	Thr
65					70					75				80	
Ala	Ala	Phe	Gln	Glu	Val	Gln	Gln	Leu	Phe	Gly	Phe	Ile	Thr	Thr	Ile
			85						90					95	
Ile	Ser	Ala	Ile	Ala	Gly	Ile	Ser	Leu	Phe	Val	Gly	Gly	Thr	Gly	Val
		100						105					110		
Met	Asn	Ile	Met	Leu	Val	Ser	Val	Thr	Glu	Arg	Thr	Arg			
		115					120					125			

&lt;210&gt; 411

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

ccacatactt caccctcttc acccctcca cctactccac cacctggcag tcgccatcga  
 60  
 ggatgggacg caactccacg tccacatgct ccggaccacg cggcgtgtgg tggatgtgca  
 120  
 gcacgcggtc ggggccctt gagctcgaag gcgcggcgca tcgggcagtg ctgcgcggcc  
 180

tggtcgcagg gcacgtcgta ctggtgcgag acgcggaagc acttgtggcc gatgtaggcg  
 240  
 cgatcggctg tcccgaactg gcgctgatag gccgtgtaca caacacaaac tgttgtactc  
 300  
 ccggtccacc acgatcatgg gctgggactc gtgttcagg tggggggcca gggcttgggc  
 360  
 ctgcggtgag cgcgtggggg ggatggggca tagcgtcggg gaggaggtg  
 409

<210> 412  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 412  
 Met Pro His Pro Pro His Ala Leu Thr Ala Gly Pro Ser Pro Gly Pro  
 1 5 10 15  
 Pro Pro Gly Thr Arg Val Pro Ala His Asp Arg Gly Gly Pro Gly Val  
 20 25 30  
 Gln Gln Phe Val Leu Cys Thr Arg Pro Ile Ser Ala Ser Ser Gly Gln  
 35 40 45  
 Pro Ile Ala Pro Thr Ser Ala Thr Ser Ala Ser Ala Ser Arg Thr Ser  
 50 55 60  
 Thr Thr Cys Pro Ala Thr Arg Pro Ala Ser Thr Ala Arg Cys Ala Ala  
 65 70 75 80  
 Pro Ser Ser Ser Arg Gly Pro Asp Arg Val Leu His Ile His His Thr  
 85 90 95  
 Pro Arg Gly Pro Glu His Val Asp Val Glu Leu Arg Pro Ile Leu Asp  
 100 105 110  
 Gly Asp Cys Gln Val Val Glu  
 115

<210> 413  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 413  
 ccgggcatcc caccaccggg tgtcatgaac caagtagtgg cccctatggg agggactcca  
 60  
 gcaccgggtg gaagtccata tggacaacag gtgggagttt tggggcctcc agggcagcag  
 120  
 gcaccacctc catatcccgg cccacatcca gctggacccc ctgtcataca gcagccaaca  
 180  
 acacccatgt ttgtagctcc cccccaaag acccagcggc ttcttcactc agaggcctac  
 240  
 ctgaaatata ttgaaggact cagtgcggag tccaacagca ttagcaagtg ggatcagaca  
 300  
 ctggcagctc ggagacgga cgtccatttg tcgaaagaac aggagagccg cctaccc  
 357

<210> 414  
 <211> 119  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 414

```

Pro Gly Ile Pro Pro Pro Gly Val Met Asn Gln Val Val Ala Pro Met
 1           5           10           15
Val Gly Thr Pro Ala Pro Gly Gly Ser Pro Tyr Gly Gln Gln Val Gly
          20           25           30
Val Leu Gly Pro Pro Gly Gln Gln Ala Pro Pro Pro Tyr Pro Gly Pro
          35           40           45
His Pro Ala Gly Pro Pro Val Ile Gln Gln Pro Thr Thr Pro Met Phe
          50           55           60
Val Ala Pro Pro Pro Lys Thr Gln Arg Leu Leu His Ser Glu Ala Tyr
65           70           75           80
Leu Lys Tyr Ile Glu Gly Leu Ser Ala Glu Ser Asn Ser Ile Ser Lys
          85           90           95
Trp Asp Gln Thr Leu Ala Ala Arg Arg Arg Asp Val His Leu Ser Lys
          100          105          110
Glu Gln Glu Ser Arg Leu Pro
          115

```

&lt;210&gt; 415

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 415

```

tctagagcca acttggttat cgtaatgaat agagagacta catctatatc aattattacg
60
ctctatagta atcatgaagc ttgggttata tgtatgacaa aaattgcaga aaaatcgaaa
120
caagaatatg gcgacttact aaaagaaaaa gaccatttac aagatatgga acagcttgag
180
atgactatcg tctcgatcca tacgccgtat ccgctcattg tcagaattca aggaaaaatc
240
aacacattac agccagagct ttggcaagct cccaatttag caattcgggt aattgtgagc
300
aatccgccag agggacaacc catctcacgc gt
332

```

&lt;210&gt; 416

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 416

```

Met Asn Arg Glu Thr Thr Ser Ile Ser Ile Ile Thr Leu Tyr Ser Asn
 1           5           10           15
His Glu Ala Trp Val Ile Cys Met Thr Lys Ile Ala Glu Lys Ser Lys
          20           25           30
Gln Glu Tyr Gly Asp Leu Leu Lys Glu Lys Asp His Leu Gln Asp Met
          35           40           45
Glu Gln Leu Glu Met Thr Ile Val Ser Ile His Thr Pro Tyr Pro Ser
          50           55           60
Ile Val Arg Ile Gln Gly Lys Ile Asn Thr Leu Gln Pro Glu Leu Trp

```





130                      135                      140  
 Gly Pro Arg Ala Leu Asn Ala Asn Gly Ile Lys Val Leu Ala Asp Pro  
 145                      150                      155                      160  
 Arg

<210> 419  
 <211> 797  
 <212> DNA  
 <213> Homo sapiens

<400> 419  
 atttcacccc aggaaaacca gtaaggacca atgattaagc ccaagggttg gtaccgagtt  
 60  
 cggatccata agtaccggcc gccagggtg ctggaatttg ggctcccccc ggtgaaaata  
 120  
 tccatgcagc cgcgttgtct taggtagaaa agggagactg ggggtgggtg ggctgagctc  
 180  
 aagcccctgc ctacatactt tagtagtaac gactcccgat ctgcatccaa cacatttacc  
 240  
 gaacttctag taagcgcccc ccgctgcaag cgaaagcact cccctgccaa gaaacagatc  
 300  
 ttttccactt aaaattccca aactcagacc ttccactttt tactgaacaa aaagcgtgta  
 360  
 catgatctga agggttgaca tgacattttc taaattgggc gaatcaggaa gaggttgatg  
 420  
 aaaatccttg acgttttctg gggataggac atttgtgtgt gataacgttc ttaagtcgaa  
 480  
 tttcagtgtg gcagtgcacg cagattcttc attggtgtta gtgtatttcc atacggtatg  
 540  
 tattagtaca agaaatagtg ttccctttga cactcgaacc caaggagtgg tccgaggctt  
 600  
 tttagggcaa cgtaggatca atgtctctga agcagatttg gtgaaggatg caggtctcat  
 660  
 aatttacaga gcaatcacag ctttctttga aacggagaaa ttagattcta tgaaattttg  
 720  
 tcagtgcaga tagatatgat gtggagaaac ggggaaaatt gagtacaaaa agatgaggct  
 780  
 tgaatgatgg ctggcca  
 797

<210> 420  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 420  
 Met Arg Pro Ala Ser Phe Thr Lys Ser Ala Ser Glu Thr Leu Ile Leu  
 1                      5                      10                      15  
 Arg Cys Leu Lys Lys Pro Arg Thr Thr Pro Trp Val Arg Val Ser Lys  
 20                      25                      30  
 Gly Thr Leu Phe Leu Val Leu Ile His Thr Val Trp Lys Tyr Thr Asn  
 35                      40                      45  
 Thr Asn Glu Glu Ser Ala Cys Thr Ala Thr Leu Lys Phe Asp Leu Arg

50                      55                      60  
 Thr Leu Ser His Thr Asn Val Leu Ser Pro Glu Asn Val Lys Asp Phe  
 65                      70                      75                      80  
 His Gln Pro Leu Pro Asp Ser Pro Asn Leu Glu Asn Val Met Ser Thr  
                     85                      90                      95  
 Leu Gln Ile Met Tyr Thr Leu Phe Val Gln  
                     100                      105

<210> 421  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 421  
 ggatccacca tgatggagcc caccacacca tcttcagtcc acctgctgca gcttctccat  
 60  
 aacccaacac aggtcaatct tgtctcccta aacacacccat gtgctctcat gctgccatgg  
 120  
 ttgacctggg gccctctcta cctcctctgc tttctggaga acccttgac tctcccaag  
 180  
 ccttcaagtt ggaaagtga cagtcagcat atgtctctag ctcagccctt actgcgtgga  
 240  
 ttcataaga ttggttcact gtcagccctt gaccagaacg tgtgttttag gaaagcagga  
 300  
 accaagtctt accaatgtct gtagtccag cctccaccct ggcatacagt aggtgctcat  
 360  
 tgaatgtggg agggaaagag gagacacatg gaagggaatg tcattc  
 406

<210> 422  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 422  
 Met Met Glu Pro Thr His Pro Ser Ser Val His Leu Leu Gln Leu Leu  
 1                      5                      10                      15  
 His Asn Pro Thr Gln Val Asn Leu Val Ser Leu Asn Thr Pro Cys Ala  
                     20                      25                      30  
 Leu Met Leu Pro Trp Phe Ala Trp Gly Pro Leu Tyr Leu Leu Cys Phe  
                     35                      40                      45  
 Leu Glu Asn Pro Cys Thr Pro Pro Lys Pro Ser Ser Trp Lys Val Asn  
                     50                      55                      60  
 Ser Gln His Met Ser Leu Ala Gln Pro Leu Leu Arg Gly Phe Met Lys  
 65                      70                      75                      80  
 Ile Gly Ser Leu Ser Ala Pro Asp Gln Asn Val Cys Phe Arg Lys Ala  
                     85                      90                      95  
 Gly Thr Lys Ser Tyr Gln Cys Leu  
                     100

<210> 423  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 423

ngccacccta cgctcgcct gcaatggcaa cttcagatcc ccggtggcac cgtagtctta  
 60  
 gagccaccgg ttctgagcgg ggaggacgac ggggttgggg cggaggaagg agagggagaa  
 120  
 ggagatgggg atttgctgac gcagacccaa gcccacacgc cgactccagc acccgcttgg  
 180  
 ccggcgcccc cagccacacc gcgcttcttg gccctcgcaa atggctccct gttggtgccc  
 240  
 ctcttgagtg ccaaggaggc gggcgtctac acttgccgtg cacacaatga gctgggcgcc  
 300  
 aactctacgt caatacgcgt ggcggtggca gcaaccgggc ccccaaaaaca cgcgctgggc  
 360  
 gccgggggag aaccgcagcg acaggccccc acctctgagc gcaagtccac agccaagggc  
 420  
 cgggggcaaca gcgtctgccc ttccaaaccc gagggcaaaa tcaaaggcca aggcctggcc  
 480  
 aaggtcagca ttctcgggga gaccgagacg gagccggagg aggacacaag tgagggagag  
 540  
 gaggccgaag accagatcct cgcggaccgc gcggaggagc agcgctgtgg caacggggac  
 600  
 ccctctcggc acgtttctaa ccacgcgt  
 628

&lt;210&gt; 424

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 424

Xaa	His	Pro	Thr	Pro	Arg	Leu	Gln	Trp	Gln	Leu	Gln	Ile	Pro	Gly	Gly
1				5				10					15		
Thr	Val	Val	Leu	Glu	Pro	Pro	Val	Leu	Ser	Gly	Glu	Asp	Asp	Gly	Val
			20					25				30			
Gly	Ala	Glu	Glu	Gly	Glu	Gly	Glu	Gly	Asp	Gly	Asp	Leu	Leu	Thr	Gln
			35				40					45			
Thr	Gln	Ala	Gln	Thr	Pro	Thr	Pro	Ala	Pro	Ala	Trp	Pro	Ala	Pro	Pro
			50				55				60				
Ala	Thr	Pro	Arg	Phe	Leu	Ala	Leu	Ala	Asn	Gly	Ser	Leu	Leu	Val	Pro
65				70					75					80	
Leu	Leu	Ser	Ala	Lys	Glu	Ala	Gly	Val	Tyr	Thr	Cys	Arg	Ala	His	Asn
				85					90					95	
Glu	Leu	Gly	Ala	Asn	Ser	Thr	Ser	Ile	Arg	Val	Ala	Val	Ala	Ala	Thr
			100					105					110		
Gly	Pro	Pro	Lys	His	Ala	Pro	Gly	Ala	Gly	Gly	Glu	Pro	Asp	Gly	Gln
			115				120					125			
Ala	Pro	Thr	Ser	Glu	Arg	Lys	Ser	Thr	Ala	Lys	Gly	Arg	Gly	Asn	Ser
			130				135				140				
Val	Leu	Pro	Ser	Lys	Pro	Glu	Gly	Lys	Ile	Lys	Gly	Gln	Gly	Leu	Ala
145				150					155					160	
Lys	Val	Ser	Ile	Leu	Gly	Glu	Thr	Glu	Thr	Glu	Pro	Glu	Glu	Asp	Thr
				165				170						175	
Ser	Glu	Gly	Glu	Glu	Ala	Glu	Asp	Gln	Ile	Leu	Ala	Asp	Pro	Ala	Glu

180 185 190  
 Glu Gln Arg Cys Gly Asn Gly Asp Pro Ser Arg Tyr Val Ser Asn His  
 195 200 205  
 Ala

<210> 425  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 425  
 ccggccgctcg aagactttga ggacgatgta gctcgacgag cagcggttacg agccctggag  
 60  
 tacgtggatt tgacccacagg cactnaagtg cgcgtcatcg ccattgacac cgtgttccta  
 120  
 ggatcgtgca cgaatggccg tgaggactta cggctggctg ctgagggtcc caaaggacga  
 180  
 catatcgag cgggcacccg gatgctcgtc gccctggat ctgctcgtgt ccgtctgcag  
 240  
 gctatggagg aaggcctcga cgagatcggg tcccggtttg ctgacatctt tcgcaataac  
 300  
 tctgcgaaca atggcttggt actggctcag gttgaccccg aggtcgtcga agagttgtgg  
 360  
 gactttgccg agcagcatcc tggtagcag ctcaccgtct ccctcgagaa tcggacgac  
 420  
 aaccttcggg gtgcacgac ctaccgttc catattgatg acgtcacgag t  
 471

<210> 426  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 426  
 Pro Ala Val Glu Asp Phe Glu Asp Asp Val Ala Arg Ser Ala Ala Leu  
 1 5 10 15  
 Arg Ala Leu Glu Tyr Val Asp Leu Thr Pro Gly Thr Xaa Val Arg Val  
 20 25 30  
 Ile Ala Ile Asp Thr Val Phe Leu Gly Ser Cys Thr Asn Gly Arg Glu  
 35 40 45  
 Asp Leu Arg Leu Ala Ala Glu Val Pro Lys Gly Arg His Ile Ala Ala  
 50 55 60  
 Gly Thr Arg Met Leu Val Ala Pro Gly Ser Ala Arg Val Arg Leu Gln  
 65 70 75 80  
 Ala Met Glu Glu Gly Leu Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile  
 85 90 95  
 Phe Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp  
 100 105 110  
 Pro Glu Val Val Glu Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly  
 115 120 125  
 Glu Gln Leu Thr Val Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly  
 130 135 140  
 Arg Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg

145

150

155

&lt;210&gt; 427

&lt;211&gt; 546

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 427

ctagcggtag tagaaggat gcagttgat cgcggctact tgtctccgta tttcatcaac  
 60  
 aatcaagaaa caatgaatgc agagctagaa aacccattta ttcttcttgt tgataagaaa  
 120  
 atttctaata tccgtgactt gctaccaatt ttggaagggtg ttgctaaagc atcgcgccca  
 180  
 ttgttgatca ttgcggaaga cggtgaaggc gaagcggttg caaccttggt tgtaaacact  
 240  
 atgcgcgga tcgtaaaagt agcggcagcg aaagcgccag gttttggtga tcgccgtaaa  
 300  
 gcaatgcttc aagacattgc tgtgctaacg ggttcaactg ttatttcaga agaaattggc  
 360  
 attagcttg aagaagcgac aattgaacag ttgggtacag cgaagcgctg tacattgaca  
 420  
 aaagaaagta caacgattgt tgatgggtgcg ggtgttgag ctaatattac tggtcgtgtt  
 480  
 gagcaaattc gtgcagaaat tgctaactct tcttctggct acgataaaga gaaattgcaa  
 540  
 gaacgc  
 546

&lt;210&gt; 428

&lt;211&gt; 182

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 428

Leu Ala Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro  
 1 5 10 15  
 Tyr Phe Ile Asn Asn Gln Glu Thr Met Asn Ala Glu Leu Glu Asn Pro  
 20 25 30  
 Phe Ile Leu Leu Val Asp Lys Lys Ile Ser Asn Ile Arg Asp Leu Leu  
 35 40 45  
 Pro Ile Leu Glu Gly Val Ala Lys Ala Ser Arg Pro Leu Leu Ile Ile  
 50 55 60  
 Ala Glu Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr  
 65 70 75 80  
 Met Arg Gly Ile Val Lys Val Ala Ala Ala Lys Ala Pro Gly Phe Gly  
 85 90 95  
 Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Val Leu Thr Gly Ser  
 100 105 110  
 Thr Val Ile Ser Glu Glu Ile Gly Ile Lys Leu Glu Glu Ala Thr Ile  
 115 120 125  
 Glu Gln Leu Gly Thr Ala Lys Arg Val Thr Leu Thr Lys Glu Ser Thr  
 130 135 140  
 Thr Ile Val Asp Gly Ala Gly Val Ala Ala Asn Ile Thr Gly Arg Val

145                      150                      155                      160  
 Glu Gln Ile Arg Ala Glu Ile Ala Asn Ser Ser Ser Gly Tyr Asp Lys  
                          165                      170                      175  
 Glu Lys Leu Gln Glu Arg  
                          180

<210> 429  
 <211> 425  
 <212> DNA  
 <213> Homo sapiens

<400> 429  
 gctagcagcc cttacaggag acgggctaata aataatgcag cagtggctcc gacaacttgc  
 60  
 ccgttgacgc cgggtcacgga tccatttgc tttagtagac aggcgctcca aagtacacca  
 120  
 ctgggagcgtt cgtccaaaag cagtccacct gtcttgcaag gccagcccc cgcaggggtt  
 180  
 tctcaacacc ccggtttgct tgtgccttac acacaatgca aaaaatagct ctcagggacc  
 240  
 ctgtgagccc ctgcctggac ctctgacaca gccagagca catgccagtc cgttttctgg  
 300  
 tgcattgaca ctttcagcac ctctggggcc tgagatgaac aggagtgcag aggtcggtcc  
 360  
 cagttcagag cctgaagttc agactctgcc atatcttct cactacattc caggagtgga  
 420  
 tctctg  
 425

<210> 430  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 430  
 Met Gln Gln Trp Leu Arg Gln Leu Ala Arg Cys Ser Arg Ser Arg Ile  
 1                      5                      10                      15  
 His Leu Leu Leu Val Asp Arg Arg Ser Lys Val His His Trp Ala Val  
                          20                      25                      30  
 Arg Pro Lys Ala Val His Leu Ser Cys Lys Ala Gln Pro Pro Gln Gly  
                          35                      40                      45  
 Phe Leu Asn Thr Pro Val Cys Leu Cys Leu Thr His Asn Ala Lys Asn  
                          50                      55                      60  
 Ser Ser Gln Gly Pro Cys Glu Pro Leu Pro Gly Pro Leu Thr Gln Pro  
 65                      70                      75                      80  
 Arg Ala His Ala Ser Pro Phe Ser Gly Ala Leu Thr Pro Ser Ala Pro  
                          85                      90                      95  
 Pro Gly Pro Glu Met Asn Arg Ser Ala Glu Val Gly Pro Ser Ser Glu  
                          100                      105                      110  
 Pro Glu Val Gln Thr Leu Pro Tyr Leu Pro His Tyr Ile Pro Gly Val  
                          115                      120                      125  
 Asp Pro  
 130

<210> 431  
 <211> 192  
 <212> DNA  
 <213> Homo sapiens

<400> 431  
 ctagccatcc accagcgtag acacacggga gagaggccct aactggcct cgggtgcaac  
 60  
 cgccgcttcc gccagcgac gccctcgtc atccaccagc gcatccacac gggcgagaag  
 120  
 cctnaccggt gcccggaactg cgagcgggc ttctcctcct cctctcgcct ggtagtcac  
 180  
 cggcgtgtgc ac  
 192

<210> 432  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 432  
 Leu Ala Ile His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Thr Gly  
 1 5 10 15  
 Leu Gly Cys Asn Arg Arg Phe Arg Gln Arg Thr Ala Leu Val Ile His  
 20 25 30  
 Gln Arg Ile His Thr Gly Glu Lys Pro Xaa Pro Cys Pro Asp Cys Glu  
 35 40 45  
 Arg Arg Phe Ser Ser Ser Ser Arg Leu Val Ser His Arg Arg Val His  
 50 55 60

<210> 433  
 <211> 635  
 <212> DNA  
 <213> Homo sapiens

<400> 433  
 nngccggcgg ctgcgttggg atacgacgtc gctgcgattg ggcgtgagta tctttggtac  
 60  
 ctcatggagg agcgtggcgc gtatgaggag gccgcgcgc tcatgccgct gctgctcgg  
 120  
 accgaccgag gcgcgtggga cacgtttgtg tgctgctacc tcgagcggca ccaaagggat  
 180  
 gcgatactcc cgcacattcc gacgcaggac cccagctga gtgagatggt gtacgatctc  
 240  
 gtgctggtgc atctgctgca gcacgatccc acgcagctgt tggcgacgct ccgcgcatgg  
 300  
 ccgagtcaca tctactcgaa gcaggcgggtg gctgcggcga tcggcgatca cgcacgaacc  
 360  
 agccgcacgc tgctcgagtg cctcgcacag ctgtacatgg ccgcacatca gcccggaag  
 420  
 gctctgacat actacatgcg cctgcgtgat ccattgcgtgt ttgatctcat tcgcgagtag  
 480  
 gatctgctga tcgatgtgca gcaccacatc ggcacgctcg tcgagctcga tcaggaatgc  
 540



gccggctcca ctgagccgcg ctccagcgcg cttatgccgc tgctcgtgcc atataccac  
 600  
 tcgattccca tccagcgcgc catggcgag ctcga  
 635

<210> 434

<211> 211

<212> PRT

<213> Homo sapiens

<400> 434

Xaa Pro Ala Ala Ala Leu Gly Tyr Asp Val Ala Ala Ile Gly Arg Glu  
 1 5 10 15  
 Tyr Leu Trp Tyr Leu Met Glu Glu Arg Gly Ala Tyr Ala Glu Ala Ala  
 20 25 30  
 Ala Leu Met Pro Leu Leu Leu Arg Thr Asp Arg Gly Ala Trp Asp Thr  
 35 40 45  
 Phe Val Cys Cys Tyr Leu Glu Arg His Gln Arg Asp Ala Ile Leu Pro  
 50 55 60  
 His Ile Pro Thr Gln Asp Pro Gln Leu Ser Glu Met Val Tyr Asp Leu  
 65 70 75 80  
 Val Leu Val His Leu Leu Gln His Asp Pro Thr Gln Leu Leu Ala Thr  
 85 90 95  
 Leu Arg Ala Trp Pro Ser His Ile Tyr Ser Lys Gln Ala Val Ala Ala  
 100 105 110  
 Ala Ile Gly Asp His Ala Arg Thr Ser Arg Thr Leu Leu Glu Cys Leu  
 115 120 125  
 Ala Gln Leu Tyr Met Ala Ala His Gln Pro Gly Lys Ala Leu Thr Tyr  
 130 135 140  
 Tyr Met Arg Leu Arg Asp Pro Cys Val Phe Asp Leu Ile Arg Glu Tyr  
 145 150 155 160  
 Asp Leu Leu Ile Asp Val Gln His His Ile Gly Thr Leu Val Glu Leu  
 165 170 175  
 Asp Gln Glu Cys Ala Gly Ser Thr Glu Pro Arg Ser Ser Ala Leu Met  
 180 185 190  
 Pro Leu Leu Val Pro Tyr Thr His Ser Ile Pro Ile Gln Arg Ala Met  
 195 200 205  
 Ala Gln Leu  
 210

<210> 435

<211> 493

<212> DNA

<213> Homo sapiens

<400> 435

nncgtacgtt cgcgtatttt ccgcgcccg gaagctatcg ataataaagt tcaaccgctg  
 60  
 atccagcgtt agcaatggcg ggcacaggaa gggtagcttag gcatgcagaa agaaaagctt  
 120  
 tccgctctga tggatggtga atcgctcgac agcgagctgt tgagttctct gtcgcaagat  
 180  
 cgaacgcttc aacaaagctg gcagggetat cacctgatac gtgacacact gcgaggtgat  
 240

gtcgggcaag tgatgcatct cgacatcgcc gatcgcgtag ccgctgcact tgagaaagaa  
 300  
 cccgcccggc tgggtgccttc cgccgttcag gaatctcagc cgcagcctca cacctggcag  
 360  
 aaaatgccgt tctgggacaa agtgcgtccc tgggcgagcc agattacgca aatcggtatg  
 420  
 gcggcctgcg tgtcgctggc ggtgatcgtc ggcgtgcagc agtacaacca gccttctgcg  
 480  
 ccatcgaacg cgt  
 493

<210> 436

<211> 130

<212> PRT

<213> Homo sapiens

<400> 436

Met	Gln	Lys	Glu	Lys	Leu	Ser	Ala	Leu	Met	Asp	Gly	Glu	Ser	Phe	Asp
1				5					10					15	
Ser	Glu	Leu	Leu	Ser	Ser	Leu	Ser	Gln	Asp	Arg	Thr	Leu	Gln	Gln	Ser
		20						25					30		
Trp	Gln	Gly	Tyr	His	Leu	Ile	Arg	Asp	Thr	Leu	Arg	Gly	Asp	Val	Gly
		35					40					45			
Gln	Val	Met	His	Leu	Asp	Ile	Ala	Asp	Arg	Val	Ala	Ala	Ala	Leu	Glu
	50					55				60					
Lys	Glu	Pro	Ala	Arg	Leu	Val	Pro	Ser	Ala	Val	Gln	Glu	Ser	Gln	Pro
65					70					75				80	
Gln	Pro	His	Thr	Trp	Gln	Lys	Met	Pro	Phe	Trp	Asp	Lys	Val	Arg	Pro
			85						90					95	
Trp	Ala	Ser	Gln	Ile	Thr	Gln	Ile	Gly	Met	Ala	Ala	Cys	Val	Ser	Leu
		100						105					110		
Ala	Val	Ile	Val	Gly	Val	Gln	Gln	Tyr	Asn	Gln	Pro	Ser	Ala	Pro	Ser
		115					120						125		
Asn	Ala														
															130

<210> 437

<211> 447

<212> DNA

<213> Homo sapiens

<400> 437

ntggtaaccg gtgtccctga tatggaccct gctgtgtag agcgtaaatt atttatttta  
 60  
 cgtaattatg taacacgcat ctgtttggag tctgttaatg gaattaagga caacttttac  
 120  
 attaatacat tctcatataa aacaatcggt tataaagggt agttaaccac tgaacaagtg  
 180  
 ccacaatatt tcttagattt acaaaatcca agtatggtaa cggcattagc gcttggtcat  
 240  
 tcacgtttct caacaaatc atttcctcgt tggcgtttag cacaaccatt ccgttacatc  
 300  
 gtcataatg gcgaaatcaa tacggttcgc ggtaatatca attggatgaa agcacgtgaa  
 360

gcgttacttg aagctgaatt ttccactcgc tcagaattag atatgttaat gccaatctgt  
420

acggatggta tgtctgactc ggcaagg  
447

<210> 438

<211> 149

<212> PRT

<213> Homo sapiens

<400> 438

Xaa	Val	Thr	Gly	Val	Pro	Asp	Met	Asp	Pro	Ala	Val	Leu	Glu	Arg	Lys
1				5					10					15	
Leu	Phe	Ile	Leu	Arg	Asn	Tyr	Val	Thr	Arg	Ile	Cys	Leu	Glu	Ser	Val
			20					25					30		
Asn	Gly	Ile	Lys	Asp	Asn	Phe	Tyr	Ile	Asn	Thr	Phe	Ser	Tyr	Lys	Thr
			35					40					45		
Ile	Val	Tyr	Lys	Gly	Gln	Leu	Thr	Thr	Glu	Gln	Val	Pro	Gln	Tyr	Phe
	50					55					60				
Leu	Asp	Leu	Gln	Asn	Pro	Ser	Met	Val	Thr	Ala	Leu	Ala	Leu	Val	His
65					70					75				80	
Ser	Arg	Phe	Ser	Thr	Asn	Thr	Phe	Pro	Arg	Trp	Arg	Leu	Ala	Gln	Pro
				85					90					95	
Phe	Arg	Tyr	Ile	Ala	His	Asn	Gly	Glu	Ile	Asn	Thr	Val	Arg	Gly	Asn
			100					105					110		
Ile	Asn	Trp	Met	Lys	Ala	Arg	Glu	Ala	Leu	Leu	Glu	Ala	Glu	Phe	Phe
		115					120					125			
Thr	Arg	Ser	Glu	Leu	Asp	Met	Leu	Met	Pro	Ile	Cys	Thr	Asp	Gly	Met
	130					135						140			
Ser	Asp	Ser	Ala	Arg											
145															

<210> 439

<211> 395

<212> DNA

<213> Homo sapiens

<400> 439

nacgcgtgaa gggagagtgg ggccgagccc caggaggctg tcctgcagca gctgcaccag  
60  
cttcccaggg gccggetgga cctggccacg caaagcctga cggaggagac ctgcagggcc  
120  
ctgggcaagc tgctgccgag ggagacgctg tgcacggagc tggctctgag tgactgcatg  
180  
ctcagcgagg aagggggccac actgctgctc cgaggcctgt gtgccaacac cgtgctgcgc  
240  
tttctggact taaagggcaa caaccttcgg gctgcagggg ccgaggctct gggaaaacte  
300  
ctccaacaga acaagtccat tcagagcctc acgctggagt ggaacagcct gggcacgtgg  
360  
gacgatgcct tcgccacctt ctgcgggggc ctggc  
395

<210> 440

<211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 440  
 Arg Glu Ser Gly Ala Glu Pro Gln Glu Ala Val Leu Gln Gln Leu His  
 1 5 10 15  
 Gln Leu Pro Arg Gly Arg Leu Asp Leu Ala Thr Gln Ser Leu Thr Val  
 20 25 30  
 Glu Thr Cys Arg Ala Leu Gly Lys Leu Leu Pro Arg Glu Thr Leu Cys  
 35 40 45  
 Thr Glu Leu Val Leu Ser Asp Cys Met Leu Ser Glu Glu Gly Ala Thr  
 50 55 60  
 Leu Leu Leu Arg Gly Leu Cys Ala Asn Thr Val Leu Arg Phe Leu Asp  
 65 70 75 80  
 Leu Lys Gly Asn Asn Leu Arg Ala Ala Gly Ala Glu Ala Leu Gly Lys  
 85 90 95  
 Leu Leu Gln Gln Asn Lys Ser Ile Gln Ser Leu Thr Leu Glu Trp Asn  
 100 105 110  
 Ser Leu Gly Thr Trp Asp Asp Ala Phe Ala Thr Phe Cys Gly Gly Leu  
 115 120 125

<210> 441  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<400> 441  
 gcccagtact acgtgaacat gttcgatgcc gagcagggct tcttcgacag gcgcagcccc  
 60  
 ggccggcgagt tccaagccgg cttggatccg gaatcctggg gcggtctgtt cactgagacc  
 120  
 gacggttgga acttcgcctt ccacgctcca caggacggcc gggggctggc cgcgctctac  
 180  
 ggccggtccga aaggcttgga gaacaagctc gatgcctttt tcgcgacgcc ggaaaacgcg  
 240  
 gacaagccgg cgtacggcgg aatccacgaa atggtcgagg ccagagcggc ccggatgggc  
 300  
 caattgggca tgtccaacga gccctcgac catattccct acatctacaa ctatgccggc  
 360  
 gcgc  
 364

<210> 442  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 442  
 Ala Gln Tyr Tyr Val Asn Met Phe Asp Ala Glu Gln Gly Phe Phe Asp  
 1 5 10 15  
 Arg Arg Ser Pro Gly Gly Glu Phe Gln Ala Gly Leu Asp Pro Glu Ser  
 20 25 30  
 Trp Gly Gly Leu Phe Thr Glu Thr Asp Gly Trp Asn Phe Ala Phe His

```

      35              40              45
Ala Pro Gln Asp Gly Arg Gly Leu Ala Ala Leu Tyr Gly Gly Pro Lys
      50              55              60
Gly Leu Glu Asn Lys Leu Asp Ala Phe Phe Ala Thr Pro Glu Asn Ala
      65              70              75              80
Asp Lys Pro Ala Tyr Gly Gly Ile His Glu Met Val Glu Ala Arg Ala
      85              90              95
Val Arg Met Gly Gln Leu Gly Met Ser Asn Glu Pro Ser His His Ile
      100             105             110
Pro Tyr Ile Tyr Asn Tyr Ala Gly Ala
      115             120

```

&lt;210&gt; 443

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 443

```

accggttacg gtcagtgca acaagagatg ttgcgcaaca acctcgtgcg gatgccgctg
60
ctcatggtgc tggcaatccc ctgcgccaag atcctctcga cgaccctgtc catcggtatg
120
ggcgggtccgg cggcgtcttc cgccctggc atgggtcatcg gcggagccac tggcgcgga
180
ctgtggcgcc tcctcgaggg gctgccaggt atcccatcct caccgatgag ttctgtcatt
240
gtcggcatga tcgctgctt cgggtcggtt gcccatgccc cactcggcgt gctgctcatg
300
gttggcgaga tgaccggaaa cctgtcgctg ctgctcctg gcatgatcgc cgtcgccgtc
360
gctggccgag ttgtcgggga cacttcgatc tacacctctc agtcaagga tcgctggag
420
ggcgacgct
430

```

&lt;210&gt; 444

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 444

```

Thr Gly Tyr Gly Ser Val Gln Gln Glu Met Phe Ala Asn Asn Leu Val
1      5      10      15
Arg Met Pro Leu Leu Met Val Leu Ala Ile Pro Phe Ala Lys Ile Leu
20     25     30
Ser Thr Thr Leu Ser Ile Gly Ser Gly Gly Pro Ala Ala Ser Ser Gly
35     40     45
Pro Gly Met Val Ile Gly Gly Ala Thr Gly Ala Ala Leu Trp Arg Leu
50     55     60
Leu Glu Gly Leu Pro Gly Ile Pro Ser Ser Pro Met Ser Phe Val Ile
65     70     75     80
Val Gly Met Ile Ala Cys Phe Gly Ala Val Ala His Ala Pro Leu Gly
85     90     95
Val Leu Leu Met Val Gly Glu Met Thr Gly Asn Leu Ser Leu Leu Ala

```

100                      105                      110  
 Pro Gly Met Ile Ala Val Ala Val Ala Gly Arg Val Val Gly Asp Thr  
           115                      120                      125  
 Ser Ile Tyr Thr Ser Gln Leu Lys Asp Arg Leu Glu Gly Asp Ala  
           130                      135                      140

<210> 445  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 445  
 ccatggggct gcctagcctc tggggaggcc cctcagctgg tgacaccagc agggcagatt  
 60  
 tcttgcttta ttgctcacc tgtccagggt tccctctggt tgtgaggag ctgctgccac  
 120  
 cttgggtcca ggaagcatga agctccgcag gtcagcctcc tgggtgggagg acttttcctt  
 180  
 agttttcttt gctcttctgc tctgagteca gccctggetg gacctttgat cccttctctc  
 240  
 tttatcagga aattttctga ctttctctt ttgcctttc aagatctgtg atgccatctc  
 300  
 caagtgggaa caagccatga aggagctgca ccccgaaag tctgagggtg ggacacgcgt  
 360

<210> 446  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Ala Cys Ser His Leu Glu Met Ala Ser Gln Ile Leu Lys Arg Gln  
   1                  5                  10                  15  
 Lys Lys Lys Val Arg Lys Phe Pro Asp Lys Glu Arg Arg Asp Gln Arg  
           20                  25                  30  
 Ser Ser Gln Gly Trp Thr Gln Ser Arg Arg Ala Lys Lys Thr Lys Glu  
           35                  40                  45  
 Lys Ser Ser His Gln Glu Ala Asp Leu Arg Ser Phe Met Leu Pro Gly  
           50                  55                  60  
 Pro Lys Val Ala Ala Ala Pro Ser Gln Thr Glu Gly Thr Leu Asp Arg  
           65                  70                  75                  80  
 Val Ser Asn Lys Ala Arg Asn Leu Pro Cys Trp Cys His Gln Leu Arg  
                   85                  90                  95  
 Gly Leu Pro Arg Gly  
           100

<210> 447  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 acgcgtgaag ggggaaattg ctcgtgccac ctgaggatta atcattaccc tggaaccctt  
 60

cccaaggcca tcaaggaaca cgcaccctt accagacctt ccagctgctg ggggctctcc  
 120  
 gagtgaggct gaggtcatgg agaaggggaat ggggggcccc catggccagc tggacctgat  
 180  
 cactgcctcc ccactcagcc acagccctca gggccctgtg ccagtccaga agccattca  
 240  
 gggacacctt tggccaatgt tctgtttcat ctgagaggca accttcccca gtgcccac  
 300  
 catagcgttt tccccaaac accctcagga aggagggacc actacctgtg cagggggggc  
 360  
 caggagcctc ctgagagcct catatgggga ggaagtggta ccatctcacc cccattgect  
 420  
 ttctctcta cttecacctg gccagcttcc ctgagtgcct ctctgcctc agtgccctt  
 480  
 cacgcgt  
 487

&lt;210&gt; 448

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 448

Met	Glu	Lys	Gly	Met	Gly	Gly	Pro	His	Gly	Gln	Leu	Asp	Leu	Ile	Thr
1				5					10					15	
Ala	Ser	Pro	Leu	Ser	His	Ser	Pro	Gln	Gly	Pro	Val	Pro	Val	Gln	Lys
			20					25					30		
Pro	Ile	Gln	Gly	His	Leu	Trp	Pro	Met	Phe	Cys	Phe	Ile	Cys	Glu	Ala
		35					40					45			
Thr	Phe	Pro	Ser	Ala	Pro	Thr	Ile	Ala	Phe	Ser	Pro	Lys	His	Pro	Gln
	50					55					60				
Glu	Gly	Gly	Thr	Thr	Thr	Cys	Ala	Gly	Gly	Ala	Arg	Ser	Leu	Leu	Arg
65					70				75					80	
Ala	Ser	Tyr	Gly	Glu	Glu	Val	Val	Pro	Ser	His	Pro	His	Cys	Leu	Ser
			85					90					95		
Leu	Leu	Leu	Pro	Pro	Gly	Gln	Leu	Pro	Ser	Val	Pro	Leu	Leu	Pro	Gln
			100					105					110		
Cys	Pro	Phe	Thr	Arg											
			115												

&lt;210&gt; 449

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 449

gagctcagcc agttggagtt tgagaagcgg cagctgcaca gggacttgga gcaggccaag  
 60  
 gagaaggggg agcgggcaga gaagctggag agggagctac agcgactcca ggaggagaac  
 120  
 gggaggctgg ccaggaaggt gacctccctg gagacagcca ccgagaaagt cgaggccctg  
 180  
 gagcatgaga gccagggcct gcagctggag aaccggactc tgaggaagtc tctggacacc  
 240

ttgcagaacg tgtccctgca gcttgagggc ctggagcgtg acaacaagca gctggacgca  
300

gagaacctgg agctgcgcag gctggtggag accatgcgga gacgacaacg cgt  
353

<210> 450

<211> 117

<212> PRT

<213> Homo sapiens

<400> 450

Glu	Leu	Ser	Gln	Leu	Glu	Phe	Glu	Lys	Arg	Gln	Leu	His	Arg	Asp	Leu
1				5					10					15	
Glu	Gln	Ala	Lys	Glu	Lys	Gly	Glu	Arg	Ala	Glu	Lys	Leu	Glu	Arg	Glu
			20					25					30		
Leu	Gln	Arg	Leu	Gln	Glu	Glu	Asn	Gly	Arg	Leu	Ala	Arg	Lys	Val	Thr
			35				40					45			
Ser	Leu	Glu	Thr	Ala	Thr	Glu	Lys	Val	Glu	Ala	Leu	Glu	His	Glu	Ser
	50						55				60				
Gln	Gly	Leu	Gln	Leu	Glu	Asn	Arg	Thr	Leu	Arg	Lys	Ser	Leu	Asp	Thr
65					70				75					80	
Leu	Gln	Asn	Val	Ser	Leu	Gln	Leu	Glu	Gly	Leu	Glu	Arg	Asp	Asn	Lys
			85						90					95	
Gln	Leu	Asp	Ala	Glu	Asn	Leu	Glu	Leu	Arg	Arg	Leu	Val	Glu	Thr	Met
			100					105					110		
Arg	Arg	Arg	Gln	Arg											
			115												

<210> 451

<211> 444

<212> DNA

<213> Homo sapiens

<400> 451

gtgatgcggc tgactaagcc tactttatcc accaatatcc cagtaacatg tgaagagaaa  
60  
gacttacctg gagatctctt taaccagctg atgagagatg atccttcaac cgtaaatggt  
120  
gcagaagttt taatgttggg agaaatgctg actttaccac agaattttgg gaatatattt  
180  
ttgggagaga ctttttccag ttatatcagc gttcataatg atagcaatca agttgtaaaa  
240  
gacatattag taaaagctga tcttcagaca agttctcagc gtttaaactt ttcagcctcc  
300  
aatgctgcag tggctgaact taaaccggat tgttgattg atgatgtcat acatcatgaa  
360  
gtcaaagaaa ttggaacaca catcttggtg tgtgctgtga gttatacaac tcaggctgga  
420  
gaaaaaatgt atttcagaaa attt  
444

<210> 452

<211> 148

<212> PRT



<213> Homo sapiens

<400> 452

```

Val Met Arg Leu Thr Lys Pro Thr Leu Phe Thr Asn Ile Pro Val Thr
 1             5             10             15
Cys Glu Glu Lys Asp Leu Pro Gly Asp Leu Phe Asn Gln Leu Met Arg
      20             25             30
Asp Asp Pro Ser Thr Val Asn Gly Ala Glu Val Leu Met Leu Gly Glu
      35             40             45
Met Leu Thr Leu Pro Gln Asn Phe Gly Asn Ile Phe Leu Gly Glu Thr
      50             55             60
Phe Ser Ser Tyr Ile Ser Val His Asn Asp Ser Asn Gln Val Val Lys
65             70             75             80
Asp Ile Leu Val Lys Ala Asp Leu Gln Thr Ser Ser Gln Arg Leu Asn
      85             90             95
Leu Ser Ala Ser Asn Ala Ala Val Ala Glu Leu Lys Pro Asp Cys Cys
      100            105            110
Ile Asp Asp Val Ile His His Glu Val Lys Glu Ile Gly Thr His Ile
      115            120            125
Leu Val Cys Ala Val Ser Tyr Thr Thr Gln Ala Gly Glu Lys Met Tyr
      130            135            140
Phe Arg Lys Phe
145

```

<210> 453

<211> 373

<212> DNA

<213> Homo sapiens

<400> 453

```

gctagctctg accccacctt tgccaagtgg cactaggggtg gccaatgggg actaggggtg
60
tataattgga aaatacagtc tcccctgttg tccaagaaag gcccagatg acctggggct
120
tgaaaggcac tcccgctggg tgcttctctg gagcaggtgg ggggcagcgg ggcggcgggg
180
cctgtctgtg ctgagcatcc ccagctccag ggcaggtgct gggctctgag cccactggt
240
gcgttttggg atgggctggc ctgcgcggct gtcgtttcag agcacacaga agagaccctg
300
ccacaggagg agtgggagga gaagctgttg atgttctctg gagacaccct ggccatcatt
360
tctgacaacg cgt
373

```

<210> 454

<211> 108

<212> PRT

<213> Homo sapiens

<400> 454

```

Met Met Ala Arg Val Ser Arg Arg Asn Ile Asn Ser Phe Ser Ser His
 1             5             10             15
Ser Ser Cys Gly Arg Val Ser Ser Val Cys Ser Glu Thr Thr Ala Ala

```

```

      20      25      30
Gln Ala Ser Pro Ser Gln Asn Ala Pro Val Gly Leu Arg Ala Gln His
      35      40      45
Leu Pro Trp Ser Trp Gly Cys Ser Ala Gln Thr Gly Pro Ala Ala Pro
      50      55      60
Leu Pro Pro Thr Cys Ser Gln Glu Ala Pro Ser Gly Ser Ala Phe Gln
      65      70      75      80
Ala Pro Gly His Leu Gly Pro Phe Leu Asp Asn Arg Gly Asp Cys Ile
      85      90      95
Phe Gln Leu Tyr Asn Pro Ser Pro His Trp Pro Pro
      100      105

```

<210> 455  
 <211> 602  
 <212> DNA  
 <213> Homo sapiens

```

<400> 455
cctaggcaaa gcatgccac cctacctccc cttaccctta cccttcattt tcccctaagc
60
acccatcacc accgatgtta ctgtatgtgt ttgcttacgc tgacagccca ccacccacac
120
tggaatgtcc gcacgacaaa ggcaggactc ttggctgcct tagccacagc tggatcccca
180
gagctttgta ggggtgtggg cacagagtgg agtgggtact taataagtat ctgtggaatg
240
aacatgtaca gagtgaagcc ctgtgcccag aacaggctca aaataagctc aattcctttc
300
cttgccactt actaagtcct ttttctctcg cccctctca ctgacctggt tttgatgcca
360
gacagcacag atgggctagg gaggcagggtg gggaagcaga gatctgcgtc tcttgagct
420
ggagctgggtg ggtggggctc ctctctggtg ctgcggaggc tcattgggga ggtggcagcg
480
acccctcag gagcctctgt cgctgcact cagatctgtg cctttccaca gcgccggag
540
gaagacttgc tcaggagata aattcaaaga caacaggaag ctggacgtgg tggctcacgc
600
gt
602

```

<210> 456  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

```

<400> 456
Met Pro Thr Leu Pro Pro Leu Thr Leu Thr Leu His Phe Pro Leu Ser
1      5      10      15
Thr His His His Arg Cys Tyr Cys Met Cys Leu Leu Thr Leu Thr Ala
20      25      30
His His Pro His Trp Asn Val Arg Thr Thr Lys Ala Gly Leu Leu Ala
35      40      45
Ala Leu Ala Thr Ala Gly Ser Pro Glu Leu Cys Arg Val Leu Gly Thr

```

50                      55                      60  
 Glu Trp Ser Gly Tyr Leu Ile Ser Ile Cys Gly Met Asn Met Tyr Arg  
 65                      70                      75                      80  
 Val Lys Pro Cys Ala Gln Asn Arg Leu Lys Ile Ser Ser Ile Pro Phe  
                     85                      90                      95  
 Leu Ala Thr Tyr  
                     100

<210> 457  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 457  
 acgcgtcatg tggatattcc tgggaggttc ccaggaacgt ttctggacgg gccccgacc  
 60  
 agaggtcagg gaacttttct tattattctg cacgtgccca gggatagtca aaccaggtct  
 120  
 tccccttctg ctggccgcaa cacgccagcc gccgccacga ccgcacgctg aattcatgac  
 180  
 ccgacacgcg acgtggcagc gagcacaccc accgctagga gaaagagcgc tcacgaaga  
 240  
 tcgttttctg tccactggcc agcgccacta tgatcaggtg gggtatccgc ccggcggcgg  
 300  
 gagcaccggg acgccggggc gccg  
 324

<210> 458  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 458  
 Met Trp Ile Phe Leu Gly Gly Ser Gln Glu Arg Phe Trp Thr Gly Pro  
 1                      5                      10                      15  
 Arg Pro Glu Val Arg Glu Leu Phe Leu Leu Phe Cys Thr Cys Pro Gly  
                     20                      25                      30  
 Ile Val Lys Pro Gly Leu Pro Leu Leu Ala Ala Thr Arg Gln Pro  
                     35                      40                      45  
 Pro Pro Arg Pro His Ala Glu Phe Met Thr Arg His Ala Thr Trp Gln  
                     50                      55                      60  
 Arg Ala His Pro Pro Leu Gly Glu Arg Ala Leu Ile Glu Asp Arg Phe  
 65                      70                      75                      80  
 Leu Ser Thr Gly Gln Arg His Tyr Asp Gln Val Gly Tyr Pro Pro Gly  
                     85                      90                      95  
 Gly Gly Ser Thr Gly Thr Pro Gly Arg  
                     100                      105

<210> 459  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 459

acgcgttcat tcggcatctg ctccatgga ttctctgcgg ggaggcgcg cagagagtgc  
60  
gggtgtcgaa caccacactt cagtgatcgt ttcaaccacc ggccgagatg ggtcctgacg  
120  
ctgggcttca agccgcttgc gctcgcgctc ctgatctcgg gcagcgcgat tccggtggtt  
180  
tatgctgccg gcagacgact gcgcacgccc ctacgaggt atctgcacat gcttaaaggg  
240  
agaggcctca cccgacagct gggcatcgga ttacgaagc ccacgacgaa tcttctcgc  
300  
ctctcaaag ccgatcatcg gcatgccagg ttgtggttg aatgcttca tcaacacact  
360  
aggatcggtt gggtccacca catacccgga gggcaatcg agcgatacg acctc  
415

&lt;210&gt; 460

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 460

Met	Pro	Met	Ile	Gly	Phe	Glu	Glu	Ala	Arg	Lys	Ile	Arg	Arg	Gly	Leu
1			5					10						15	
Arg	Lys	Ser	Asp	Ala	Gln	Leu	Ser	Gly	Glu	Ala	Ser	Pro	Phe	Lys	His
		20						25					30		
Val	Gln	Ile	Pro	Arg	Glu	Gly	Arg	Ala	Gln	Ser	Ser	Ala	Gly	Ser	Ile
		35					40					45			
Asn	His	Arg	Asn	Arg	Ala	Ala	Arg	Asp	Gln	Glu	Arg	Glu	Arg	Lys	Arg
		50				55					60				
Leu	Glu	Ala	Gln	Arg	Gln	Asp	Pro	Ser	Arg	Pro	Val	Val	Glu	Thr	Ile
65				70					75					80	
Thr	Glu	Val	Ser	Cys	Ser	Thr	Pro	Ala	Leu	Ser	Ala	Ala	Pro	Pro	Arg
			85						90					95	
Arg	Lys	Ser	Met	Glu	Ala	Asp	Ala	Glu							
			100					105							

&lt;210&gt; 461

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 461

acgcgttcga ggtcggctaa atttatcatg cgcacgacaa agagagtagt ggctcacaac  
60  
cgggtcacat gcatgatgac aaaaactggc agaataagagt tgatgtcatc ccgtctacca  
120  
gtcctagaa ccagctcaga gagtcccggt gtcggtaccg tcgagactca gtacacaact  
180  
gtcgcgatac cggacgaccc tcttcatctg gttgcagatg ggcgtctcaa tcacgtcact  
240  
gtcgtttacg aaacctacgg gaagctcaat acgtccagcg acaatgcggt ctatacctgt  
300  
catgcgctta ctggtgatgc ccattgcagcc ggatttcacc ccggtgtagt ccgtccg  
357

<210> 462  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 462  
 Thr Arg Ser Arg Ser Ala Lys Phe Ile Met Arg Thr Thr Lys Arg Val  
 1 5 10 15  
 Val Ala His Asn Arg Val Thr Cys Met Met Thr Lys Thr Gly Arg Ile  
 20 25 30  
 Glu Leu Met Ser Ser Arg Leu Pro Ala Pro Arg Thr Ser Ser Glu Ser  
 35 40 45  
 Pro Gly Val Gly Thr Val Glu Thr Gln Tyr Thr Thr Val Ala Ile Pro  
 50 55 60  
 Asp Asp Pro Leu His Leu Val Ala Asp Gly Arg Leu Asn His Val Thr  
 65 70 75 80  
 Val Ala Tyr Glu Thr Tyr Gly Lys Leu Asn Thr Ser Ser Asp Asn Ala  
 85 90 95  
 Val Tyr Thr Cys His Ala Leu Thr Gly Asp Ala His Ala Ala Gly Phe  
 100 105 110  
 His Pro Gly Val Val Arg Pro  
 115

<210> 463  
 <211> 434  
 <212> DNA  
 <213> Homo sapiens

<400> 463  
 gtgcacgggg tatgcgaggg atgcggcatt gccaccaatg ccgctgacct gcgcagatac  
 60  
 gaggcagctg gtgacgatga agtgggtgcga tgcgaggaat gcgatcgtat cctgggtcgt  
 120  
 accggagagt ccattctgagc cttcttctgtg gcggtgatgc cgggatatcc gtagaattag  
 180  
 cggtcggacg agccatccgg gtgatcgagg cagcgggtgag ttgtcgagga aagtcggggc  
 240  
 tccatagagc aggggtggtgg gtaacgccca cccgggggtga cccgcgggaa agtgccacag  
 300  
 agaacagact gccggtttcg agccgggtgag ggtgaaacgg tggagtaagt gccaccgcg  
 360  
 tcacgggtga cggtgacggc atggcaaacc ccacctggag caaggccaag aagaccgtga  
 420  
 ggtcgaggac gcgt  
 434

<210> 464  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 464  
 Met Pro Ser Pro Ser Pro Met Thr Arg Trp Ala Leu Thr Pro Pro Phe

```

1           5           10           15
His Pro His Arg Leu Glu Thr Gly Ser Leu Phe Ser Val Ala Leu Ser
           20           25           30
Arg Gly Ser Pro Arg Val Gly Val Thr His His Pro Ala Leu Trp Ser
           35           40           45
Pro Asp Phe Pro Arg Gln Leu Thr Ala Ala Ala Ile Thr Arg Met Ala
           50           55           60
Arg Pro Thr Ala Asn Ser Thr Asp Ile Pro Ala Ser Pro Pro Gln Glu
65           70           75           80
Gly Leu Arg Trp Thr Leu Arg Tyr Ala Pro Gly Tyr Asp Arg Ile Pro
           85           90           95
Arg Ile Ala Pro Leu His Arg His Gln Leu Pro Arg Ile Cys Ala Gly
           100          105          110
Gln Arg His Trp Trp Gln Cys Arg Ile Pro Arg Ile Pro Arg Ala
           115          120          125

```

&lt;210&gt; 465

&lt;211&gt; 438

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 465

```

gatcatttag aatttatgga agaagctgat gtgaaagcta tggtaaatac tggcactgtg
60
gctgtattgc taccaggagc attttacacc ttgaaagaaa ctcaacttcc accgatgaat
120
ttgttacgtc agtacggagt agacattgct atttcgacgg atgctaatac agggacgtcg
180
ccagcggttat cattacgggt aatgatgaat atggcatgta ccttgtttgg tatgacacct
240
gaaaccgccc ttgcaggggt aacaattcat gcggaagaa cggtggggat tagcgattct
300
catggcactt tagaagttgg caaggtagct gattttgtct gctgggatgt ggaaagcccc
360
gggtgaacttt gttattgggt aggagagcag ttagtaaagc aacgtattca gcacggagta
420
tcccatgaat aatctaga
438

```

&lt;210&gt; 466

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 466

```

Asp His Leu Glu Phe Met Glu Glu Ala Asp Val Lys Ala Met Val Lys
1           5           10           15
Ser Gly Thr Val Ala Val Leu Leu Pro Gly Ala Phe Tyr Thr Leu Lys
           20           25           30
Glu Thr Gln Leu Pro Pro Met Asn Leu Leu Arg Gln Tyr Gly Val Asp
           35           40           45
Ile Ala Ile Ser Thr Asp Ala Asn Pro Gly Thr Ser Pro Ala Leu Ser
           50           55           60
Leu Arg Leu Met Met Asn Met Ala Cys Thr Leu Phe Gly Met Thr Pro

```

65		70		75		80
Glu Thr Ala Leu	Ala Gly Val Thr Ile His	Ala Ala Lys Ala Leu Gly				
	85		90		95	
Ile Ser Asp Ser	His Gly Thr Leu Glu Val Gly Lys Val Ala Asp Phe					
	100		105		110	
Val Cys Trp Asp	Val Glu Ser Pro Gly Glu Leu Cys Tyr Trp Leu Gly					
	115		120		125	
Glu Gln Leu Val	Lys Gln Arg Ile Gln His Gly Val Ser His Glu					
	130		135		140	

&lt;210&gt; 467

&lt;211&gt; 460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 467

```

ntttccctgg ctattggcca tgtgggacac aacgttccgc ctaccccaga gcgggtaagc
60
tgcatccctg caccttcttc tcccaccgct tcaaagccac agtgaggaac ttcggagctt
120
ctcgcagtga agatggcggt ggaggaatgg atgccctggc tagaagaggc ggaatatctg
180
ttgattgtgt ggaccgacca caaaaacctg gagtatctcc acacaaccaa gtgcctcaac
240
tccaggcaag caagaagggc ccagctgttt acctggttcc acttttccct ctctaccgg
300
ccgggggtcca agaacatcag gctggatgcc ctttcttgcc actttatggg catgggcca
360
ttcctccagg cttgcctgtc acccgggctc ccgtcaaacc ctggccttcg tgcgacaaca
420
ctcttggtgc cttctatggt tctgtatggt gccgcaattg
460

```

&lt;210&gt; 468

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 468

Gly Thr Ser Glu Leu Leu Ala Val Lys Met Ala Leu Glu Glu Trp Met									
1		5		10		15			
Pro Trp Leu Glu Glu Ala Glu Tyr Leu Leu Ile Val Trp Thr Asp His									
	20		25		30				
Lys Asn Leu Glu Tyr Leu His Thr Thr Lys Cys Leu Asn Ser Arg Gln									
	35		40		45				
Ala Arg Arg Ala Gln Leu Phe Thr Trp Phe His Phe Ser Leu Ser Tyr									
	50		55		60				
Arg Pro Gly Ser Lys Asn Ile Arg Leu Asp Ala Leu Ser Cys His Phe									
65		70		75		80			
Met Gly Met Gly Pro Phe Leu Gln Ala Cys Leu Ser Pro Gly Leu Pro									
	85		90		95				
Ser Asn Pro Gly Leu Arg Ala Thr Thr Leu Leu Val Pro Ser Met Val									
	100		105		110				
Leu Tyr Val Ala Ala Ile									

115

<210> 469  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 469  
 cttgtgcaca cgttattttt ccaatacaaa tagtttaaaa agtaaaactcc aaatacctat  
 60  
 aagccccctc aaagcacctt ccaaataatga accttggttaa tgcccaaggt ccagaggggt  
 120  
 cccccagaaa ggcccaggag cctggggcat gggaaagctg tcgggggtccc catgctgact  
 180  
 ccctggactc caagcgatat tccataaagc cagggcctcc tggctgcggg agggaggcct  
 240  
 tgacccaaaa tccattcggc cctggatact ggagaggcag aggcctctgc tgatgagaag  
 300  
 ccctgagttc ctggctagct gtggtaacc acaaaaaatg cgggggggtga tgattttcga  
 360  
 agtccatcgg caaagaaaga c  
 381

<210> 470  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 470  
 Met Asp Phe Glu Asn His His Pro Pro His Phe Leu Trp Leu Thr Thr  
 1 5 10 15  
 Ala Ser Gln Glu Leu Arg Ala Ser His Gln Gln Arg Pro Leu Pro Leu  
 20 25 30  
 Gln Tyr Pro Gly Pro Asn Gly Phe Trp Val Lys Ala Ser Leu Pro Gln  
 35 40 45  
 Pro Gly Gly Pro Gly Phe Met Glu Tyr Arg Leu Glu Ser Arg Glu Ser  
 50 55 60  
 Ala Trp Gly Pro Arg Gln Leu Ser His Ala Pro Gly Ser Trp Ala Phe  
 65 70 75 80  
 Leu Gly Asp Pro Ser Gly Pro Trp Ala Leu Thr Arg Phe Ile Phe Gly  
 85 90 95  
 Arg Cys Phe Glu Gly Ala Tyr Arg Tyr Leu Glu Phe Thr Phe  
 100 105 110

<210> 471  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 471  
 accggtgact acctgcagca ctggattgac atgggtaaaa agggcggcga ccgcatgcca  
 60  
 gaggtcttcc tgggttaactg gttccgccgc ggcgacgatg gccgcttcct gtggccngg  
 120



cttggcgaaa acttcccggt cctanagtgg atcatcgacc gcattgaagg caacgtagag  
 180  
 gccgaggaca cgggtggtcgg acgcaccgcc cgcgccgagg acatcgactt gcaaggcctt  
 240  
 gacttcgatg tcgacgacgt tcgcgccgca ctgcgccgttg acccgaagga atgggaaggc  
 300  
 gatatgcaag acaacgccga gtacctgaac ttcttgggct cccgcgtgcc cgaggaagtg  
 360  
 tggaaccagt tccgcgcc  
 378

<210> 472

<211> 126

<212> PRT

<213> Homo sapiens

<400> 472

Thr	Gly	Asp	Tyr	Leu	Gln	His	Trp	Ile	Asp	Met	Gly	Lys	Lys	Gly	Gly
1				5					10					15	
Asp	Arg	Met	Pro	Glu	Val	Phe	Leu	Val	Asn	Trp	Phe	Arg	Arg	Gly	Asp
			20					25					30		
Asp	Gly	Arg	Phe	Leu	Trp	Pro	Xaa	Leu	Gly	Glu	Asn	Phe	Pro	Val	Leu
		35					40					45			
Xaa	Trp	Ile	Ile	Asp	Arg	Ile	Glu	Gly	Asn	Val	Glu	Ala	Glu	Asp	Thr
		50				55				60					
Val	Val	Gly	Arg	Thr	Ala	Arg	Ala	Glu	Asp	Ile	Asp	Leu	Gln	Gly	Leu
65					70				75				80		
Asp	Phe	Asp	Val	Asp	Val	Arg	Ala	Ala	Leu	Ala	Val	Asp	Pro	Lys	
			85					90					95		
Glu	Trp	Glu	Gly	Asp	Met	Gln	Asp	Asn	Ala	Glu	Tyr	Leu	Asn	Phe	Leu
			100					105					110		
Gly	Ser	Arg	Val	Pro	Glu	Glu	Val	Trp	Asn	Gln	Phe	Arg	Ala		
			115				120					125			

<210> 473

<211> 339

<212> DNA

<213> Homo sapiens

<400> 473

accggttggt gggggaagg acccatccca tgccacctgt cctagaaaat gtttcccctt  
 60  
 gttgagcagc tgctggatct agggctgctg ggtctaagtc caaaaaggga aaaaggaaaa  
 120  
 aggcaccaag taaaagaagg gggaagctgc caaaaccccc cctgccaaaa ctctcccacc  
 180  
 ctgcttccat ttccctctcc agggaaacagg tgtacctccc ctctccctg tctctctcag  
 240  
 atgccccagg ggtctctctac ttcatctctg ccgacctgc caggagtggc ctcaggggta  
 300  
 gaggtccta gttggagaat ttgcttgag gaaggtgaa  
 339

<210> 474

<211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 474  
 Met Phe Pro Leu Val Glu Gln Leu Leu Asp Leu Gly Leu Leu Gly Leu  
 1 5 10 15  
 Ser Pro Lys Arg Glu Lys Gly Lys Arg His Gln Val Lys Glu Gly Gly  
 20 25 30  
 Ser Cys Gln Asn Pro Pro Cys Gln Asn Ser Pro Thr Leu Leu Pro Phe  
 35 40 45  
 Pro Ser Pro Gly Asn Arg Cys Thr Ser Pro Pro Pro Cys Pro Pro Gln  
 50 55 60  
 Met Pro Gln Gly Leu Ser Thr Ser Phe Leu Pro Thr Leu Pro Gly Val  
 65 70 75 80  
 Ala Ser Gly Val Glu Ala Pro Ser Trp Arg Ile Cys Leu Gln Glu Gly  
 85 90 95  
 Glu

<210> 475  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 475  
 acgcgtgaag ggtccctcc aaactctgag cctccttcca agccttgctg ggagctcccc  
 60  
 agcgccctgcc ggagaggcct ctctccagg cgggcttccc gcgccgatgt gaaggagagg  
 120  
 ctgccccaga ggggtctgga tcgtaatcca gaaagggaca gtccacagc cataatcccc  
 180  
 aatgctggga ctcttcagta aaggaagaga tggctttttc gttcatctgc cttttgaaa  
 240  
 ggtaaaatat ctccagatcc gggctctctg ggcgactgcg tatgtggggg tccctgaagc  
 300  
 ctttgatgga tcttggttaga agtgggttgt tcatcttggg gtttt  
 345

<210> 476  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 476  
 Met Asn Asn Pro Leu Leu Thr Arg Ser Ile Lys Gly Phe Arg Asp Pro  
 1 5 10 15  
 His Ile Arg Ser Arg Pro Glu Ser Pro Asp Leu Glu Ile Phe Tyr Leu  
 20 25 30  
 Ser Glu Arg Gln Met Asn Glu Lys Ala Ile Ser Ser Phe Thr Glu Glu  
 35 40 45  
 Ser Gln His Ser Gly Leu Trp Leu Trp Asp Cys Pro Phe Leu Asp Tyr  
 50 55 60  
 Asp Pro Asp Pro Ser Gly Ala Ala Ser Pro Ser His Arg Arg Gly Lys

65					70				75					80	
Pro	Ala	Trp	Arg	Arg	Gly	Leu	Ser	Gly	Arg	Arg	Trp	Gly	Ala	Pro	Ser
				85					90					95	
Lys	Ala	Trp	Lys	Glu	Ala	Gln	Ser	Leu	Glu	Gly	Thr	Leu	His	Ala	
			100					105						110	

```
<210> 477
<211> 422
<212> DNA
<213> Homo sapiens
```

```

<400> 477
acgcgtggcc gagccagcgt gctcaaggaa atggtcaacg gcactcttat taacggctgg
60
gactctcccg aggtggaacg ggcactggac ctgtgcatgg cgtgcaaagg gtgcgccga
120
gattgccccca ccggaatcga catggccagc taccgcagca cggttcttga cgaaaaatac
180
cgtcacccgtc tccgccctcg ctcccacctg acgatggggc tgctgcccac gtgggaacgt
240
ttgctcaatc ggaccccagg agcgccgctg ctggctaacg cagtgtcttc gatgccggtc
300
ttcgcacgtc ttgctagatg gacagccggg gtggatcagc gtcgtccctt ccccgattc
360
cagccctcgg ccagattggc cagtccgcag gccgccccgg ttaaggagat tgtggcggat
420
cc
422

```

```
<210> 478
<211> 140
<212> PRT
<213> Homo sapiens
```

```

<400> 478
Thr Arg Gly Arg Ala Ser Val Leu Lys Glu Met Val Asn Gly Thr Leu
  1           5           10           15
Ile Asn Gly Trp Asp Ser Pro Glu Val Glu Arg Ala Leu Asp Leu Cys
          20           25           30
Met Ala Cys Lys Gly Cys Ala Arg Asp Cys Pro Thr Gly Ile Asp Met
      35           40           45
Ala Ser Tyr Arg Ser Thr Val Leu Asp Glu Lys Tyr Arg His Arg Leu
      50           55           60
Arg Pro Arg Ser His Leu Thr Met Gly Leu Leu Pro Met Trp Glu Arg
65           70           75           80
Leu Leu Asn Arg Thr Pro Gly Ala Pro Ser Leu Ala Asn Ala Val Leu
          85           90           95
Ser Met Pro Val Phe Ala Arg Leu Ala Arg Trp Thr Ala Gly Val Asp
          100          105          110
Gln Arg Arg Pro Leu Pro Arg Phe Gln Pro Ser Ala Arg Leu Ala Ser
          115          120          125
Pro Gln Ala Ala Pro Val Lys Glu Ile Val Ala Asp
      130          135          140

```

&lt;210&gt; 479

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 479

cgcgtaggcca ttggccgggc gctggtgcgg caccgcgac tggtgattgc cgatgagccg  
 60  
 atctcggcgt tggacatgac catccagaag cagattcttg agctgttcga ggcctgcag  
 120  
 gcgcagtacg gctttgcctg cctgttcac tcccacgacc tggcagcggt ggaacgcac  
 180  
 gccaccggg tggcggatg gagcgaggc aggggtggtg aaatgggtgc ccgcgacgag  
 240  
 atcttcgacc gccgcagca cccctacacc cgcaagctgc tggccgccgc cagcccttg  
 300  
 gagaaacttg aaaacgggtg ctaccgcac cgccagggcc ccgtaccg  
 348

&lt;210&gt; 480

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 480

Arg	Val	Ala	Ile	Gly	Arg	Ala	Leu	Val	Arg	His	Pro	Arg	Leu	Val	Ile
1				5				10					15		
Ala	Asp	Glu	Pro	Ile	Ser	Ala	Leu	Asp	Met	Thr	Ile	Gln	Lys	Gln	Ile
	20						25					30			
Leu	Glu	Leu	Phe	Glu	Arg	Leu	Gln	Ala	Gln	Tyr	Gly	Phe	Ala	Cys	Leu
	35					40					45				
Phe	Ile	Ser	His	Asp	Leu	Ala	Ala	Val	Glu	Arg	Ile	Ala	His	Arg	Val
	50				55				60						
Ala	Val	Met	Ser	Glu	Gly	Arg	Val	Val	Glu	Met	Gly	Ala	Arg	Asp	Glu
65				70					75				80		
Ile	Phe	Asp	Arg	Pro	Gln	His	Pro	Tyr	Thr	Arg	Lys	Leu	Leu	Ala	Ala
	85						90					95			
Ala	Ser	Pro	Leu	Glu	Lys	Leu	Glu	Asn	Gly	Gly	Tyr	Arg	Ile	Arg	Gln
	100						105					110			
Gly	Pro	Val	Pro												
	115														

&lt;210&gt; 481

&lt;211&gt; 441

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 481

aagcttctga ctgtggcatt ctccctgctt aatatgtcct caatatcccc tacttactgg  
 60  
 gcaaaatcct gcttatgctt tgggactagc tcaaagacca ctcccttgga tgggtgccttc  
 120  
 cctgcctgc cggttgccgc tggcttctc agtgtagga ttaccatcac attgcatcat  
 180

gagagcagaa gaccatctcc atgtgactgc tgcccctgct cccagcaggg cccacaancca  
 240  
 cccagtcacag gacctggctc acgctgggtg ggggatgccc aggaatgggg ctctggatct  
 300  
 gcctcttctc ctgcaggacc aggaaaccgc tgccctgtcc ctgccccagg aaacctcag  
 360  
 taaatcccca gtcatttgag ttccccctca gcgccagaga ccaataacac atctccacca  
 420  
 acctgaaaaa ccttcacgct t  
 441

<210> 482

<211> 120

<212> PRT

<213> Homo sapiens

<400> 482

Lys	Leu	Leu	Thr	Val	Ala	Phe	Ser	Leu	Leu	Asn	Met	Ser	Ser	Ile	Ser
1				5				10						15	
Pro	Thr	Tyr	Trp	Ala	Lys	Ser	Cys	Leu	Cys	Phe	Gly	Thr	Ser	Ser	Lys
		20						25					30		
Thr	Thr	Pro	Leu	Asp	Gly	Ala	Phe	Pro	Ala	Leu	Pro	Ala	Cys	Ala	Gly
		35				40						45			
Phe	Leu	Ser	Val	Arg	Ile	Thr	Ile	Thr	Leu	His	His	Glu	Ser	Arg	Arg
	50				55					60					
Pro	Ser	Pro	Cys	Asp	Cys	Cys	Pro	Cys	Ser	Gln	Gln	Gly	Pro	Gln	Xaa
65				70						75				80	
Pro	Ser	Pro	Gly	Pro	Gly	Ser	Arg	Trp	Val	Ala	Asp	Ala	Gln	Glu	Trp
			85					90						95	
Gly	Ser	Gly	Ser	Ala	Ser	Ser	Pro	Ala	Gly	Pro	Gly	Asn	Arg	Cys	Pro
			100					105						110	
Val	Pro	Ala	Pro	Gly	Asn	Pro	Gln								
			115				120								

<210> 483

<211> 330

<212> DNA

<213> Homo sapiens

<400> 483

acgcgttcat tcctgatgg ccacgcacga gctaacggag ggatggggcg aaggggaaggc  
 60  
 caaggttgcc tcgaagacca aggagtgtgc agggcaggac ctgcttttaa aggaatatcc  
 120  
 tctcaccaga gacacgcggc ggccaggcag ggccggagcg gggcctgtgc ccagggtccg  
 180  
 agcgtctgcc cagcccagca tcctgtccc cagccaggaa tatgtcttcg tggcatagag  
 240  
 ggagctcttg gagccacacc tgcgtgtgca catgtgtcac cccactgctg ggaggggctc  
 300  
 tcccgggacc ctgcagcgtg ggctggggcc  
 330

<210> 484

<211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 484  
 Met Gly Arg Arg Glu Gly Gln Gly Cys Leu Glu Asp Gln Gly Val Cys  
 1 5 10 15  
 Arg Ala Gly Pro Arg Phe Lys Gly Ile Ser Ser His Gln Arg His Ala  
 20 25 30  
 Ala Ala Arg Gln Gly Arg Ser Gly Ala Cys Ala Gln Ala Pro Ser Val  
 35 40 45  
 Cys Pro Ala Gln His Pro Cys Pro Gln Pro Gly Ile Cys Leu Arg Gly  
 50 55 60  
 Ile Glu Gly Ala Leu Gly Ala Thr Pro Ala Cys Ala His Val Ser Pro  
 65 70 75 80  
 His Cys Trp Glu Gly Leu Ser Arg Asp Pro Ala Ala Trp Ala Gly Pro  
 85 90 95

<210> 485  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 485  
 acgcgtgctc gcgcggacga agtcggcgct gatcgcccag tcatgcgccc tgcccgtgcc  
 60  
 gccagttcg gcgatcgccg cattcgcccg gccggaatcg agaaggaatg cgtggacgta  
 120  
 cgggggatac caaaggaatc ttgtcgaggg ctctcgggcc ctgcacgtgg atcacctgta  
 180  
 cccgacggac gtggggaagc cgtcccgcaa gctcacggga ctccgcgaca tcgatgtgcg  
 240  
 atacgatttg caccgtcgtc ggctgctgct gcgacacatg ctccgcgacg gcctcagcgg  
 300  
 tggtttccga cgtcagcagg aacgtggcga cgggtggcat ggcggtcgcc gttatgtcgg  
 360  
 cattcccatt cctcggg  
 377

<210> 486  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 486  
 Met Arg Pro Ala Arg Ala Ala Gln Phe Gly Asp Arg Arg Ile Arg Pro  
 1 5 10 15  
 Ala Gly Ile Glu Lys Glu Cys Val Asp Val Arg Gly Ile Pro Lys Glu  
 20 25 30  
 Ser Cys Arg Gly Leu Arg Gly Pro Arg Arg Gly Ser Pro Val Pro Asp  
 35 40 45  
 Gly Arg Gly Glu Ala Val Pro Gln Ala His Gly Thr Pro Arg His Arg  
 50 55 60  
 Cys Ala Ile Arg Phe Ala Pro Ser Ser Ala Ala Cys Ala Thr His Ala

<210> 489  
<211> 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 489

nacgcgtttg gcgtactgag tgcggtggtg gatggcgacg acagtggcaa gccgctgctc  
 60  
 aaccagcacg gttgctacaa agtgcgcttt ccatttaccc gcgatcaaaa gccagcact  
 120  
 cggggttcgg catggtgctg caggggtgctg ttgtctgccg gttccagcca tggcatgcac  
 180  
 ttcccgctgc tcaaaggcag tgaagtgttg gtgtcatttc tggggggcga ccccgaccgg  
 240  
 ccgattatcg ttggtgctg accaaaactcg gaaaccccgga gcattggtcgt tgagcgtaac  
 300  
 gccaccacaga gcggtcttct cacggccgga gggcacttcc tggcgatgga agaccacccc  
 360  
 ggggctgccc atctgaagct ggggtgcgctt ggcggcaaca gcgtcttcac actgggcaat  
 420  
 ggcaaagtcg ccggcgcgca actgcgcacc aacgccccac atgcaattga catcgtcttc  
 480  
 gctcaaacac gaagtgcctg gcgtgtactc attgtcgatg ggcaccgggg acccggcggg  
 540  
 cg  
 542

&lt;210&gt; 490

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 490

Xaa	Ala	Phe	Gly	Val	Leu	Ser	Ala	Val	Val	Asp	Gly	Asp	Asp	Ser	Gly
1				5					10					15	
Lys	Pro	Leu	Leu	Asn	Gln	His	Gly	Cys	Tyr	Lys	Val	Arg	Phe	Pro	Phe
			20					25					30		
Thr	Arg	Asp	Gln	Lys	Pro	Ser	Thr	Arg	Gly	Ser	Ala	Trp	Leu	Arg	Arg
		35					40					45			
Val	Ser	Leu	Ser	Ala	Gly	Ser	Ser	His	Gly	Met	His	Phe	Pro	Leu	Leu
	50					55					60				
Lys	Gly	Ser	Glu	Val	Leu	Val	Ser	Phe	Leu	Gly	Gly	Asp	Pro	Asp	Arg
65				70					75					80	
Pro	Ile	Ile	Val	Gly	Cys	Val	Pro	Asn	Ser	Glu	Thr	Pro	Ser	Met	Val
			85					90					95		
Val	Glu	Arg	Asn	Ala	Thr	Gln	Ser	Gly	Phe	Ser	Thr	Ala	Gly	Gly	His
			100					105					110		
Phe	Leu	Ala	Met	Glu	Asp	His	Pro	Gly	Ala	Ala	His	Leu	Lys	Leu	Gly
		115					120					125			
Ala	Pro	Gly	Gly	Asn	Ser	Val	Phe	Thr	Leu	Gly	Asn	Gly	Lys	Val	Ala
	130					135					140				
Gly	Ala	Gln	Leu	Arg	Thr	Asn	Ala	Pro	His	Ala	Ile	Asp	Ile	Val	Phe
145				150					155					160	
Ala	Gln	Thr	Arg	Ser	Ala	Arg	Arg	Val	Leu	Ile	Val	Asp	Gly	His	Arg
			165						170					175	
Gly	Pro	Gly	Gly												



180

<210> 491  
 <211> 825  
 <212> DNA  
 <213> Homo sapiens

<400> 491  
 nacgcgtcga ggcgacggtc ggcgccgtca tggcgactgt tctcgagggc acatgggaac  
 60  
 gcatcgggtgc cggattccgg actgccttaa ccacagcctt ggaacgcacc gatgaatggg  
 120  
 tggggggccc tgacagcaag cccctcaacg aagtcgagac actgcgccgg tgcgccgatg  
 180  
 aactcatcgg cgggcccgtc ggcgcggttg ccgcgatgca cggaggggtca atcgaattgg  
 240  
 tcgacgtgtc ggtcgggtgac gaagagcgca gactcgacgt caccatgaag ggagcatgcc  
 300  
 gaggttgccc ggcagccatc agaccctaca tcagcgcttg gaacatcaac tgagtctgcg  
 360  
 nattgcgcga gccggtcacc gtgcgggaaa tctgacacct actccgacag ctccacctcg  
 420  
 acgagcacct ccacgacgag gccaagccac tcgtagacgc attcctcttc ggcatccaat  
 480  
 tcctcccggg ccgcccgagc gacttcgtcg gcagtaacct ggtcgatgat ccctagcctg  
 540  
 gcggccatca tgccaagcag cgcattgaca gtacgaagcc aacgttgct catcacaggg  
 600  
 ttcattggaga tacagccggt tcggtgcaac gtctccacat cagcacttaa ggactgagcg  
 660  
 tcttcccagc gcgcccgcac atcctcggcg tcatggtcga catggaattg cgcgtcagct  
 720  
 gactcgctgt cacgataggc gctgggcagg atcaatcgac gcacctcgtc gtcctcctgg  
 780  
 agtccagaaa actggctctc ccaaaaagcg aacgggtccc cctcc  
 825

<210> 492  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 492  
 Met Asn Gly Trp Ala Ala Leu Thr Ala Ser Pro Ser Thr Lys Ser Arg  
 1 5 10 15  
 His Cys Ala Gly Ala Pro Met Asn Ser Ser Ala Gly Pro Ser Ala Arg  
 20 25 30  
 Leu Pro Arg Cys Thr Glu Gly Gln Ser Asn Trp Ser Thr Cys Arg Ser  
 35 40 45  
 Val Thr Lys Ser Ala Glu Ser Thr Ser Pro  
 50 55

<210> 493  
 <211> 863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 493

nacgcgttcc aacctcgtca aaacggctat cgcaggaaat gaccccaact ggggtcgcac  
 60  
 cctcgcggcg atcggatgtg ttctgagaa tatagctccc ttcgatcccg accaggtgga  
 120  
 tgtgtccatc aatgacattc agatctgtaa ggccgggggt atcggggagg accgcaacct  
 180  
 cgtcgatatg aggccacgag aggttcacat cgatattgag ctgcatgcgg gtgatgccga  
 240  
 agctgcggta tggactaatg atctgaccca ccaatacgtc gaagagaata gcgcgtatac  
 300  
 atcatgaccc ttgtcttga cateccctc aacgactccc agttctcggc tcagcggaaa  
 360  
 tctgagggtc tggtagaagc gctgccttgg atcaggcggg ttcagggccg cactgtcgtc  
 420  
 gtgaaatatg gcggcaacgc gatggttgat cccgggtctgc agcaggcctt cgccgacgac  
 480  
 attgtgttta tggcctctgt ggggattcgc cctattgtcg tccacgggtg tggccctcag  
 540  
 atcaatgcc a tgccttgcga atccgctacc ccggtggagt tccgtaatgg tttgcgggtg  
 600  
 acatctccgg aggtcatgga ggttgtccgg atggtgctcg tcgggcaggg gggccgtcag  
 660  
 ctcgtaacc gaatcaacgc ctatgcgccg ctagcagctg gcattgtcagg cgaggacttt  
 720  
 ggcctttttt cggcccgga gtcgcgggta attgttgatg gcgagcaa at agacatgggt  
 780  
 ttagtgggag acatcgttga cgtcaacatc gatctcgta tctctatgct tgatcgcggt  
 840  
 cagattccgg tcattgcacc ggt  
 863

&lt;210&gt; 494

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 494

Met Thr Leu Ala Leu Asp Ile Pro Leu Asn Asp Ser Gln Phe Ser Ala  
 1 5 10 15  
 Gln Arg Lys Ser Glu Val Leu Val Glu Ala Leu Pro Trp Ile Arg Arg  
 20 25 30  
 Phe Gln Gly Arg Thr Val Val Val Lys Tyr Gly Gly Asn Ala Met Val  
 35 40 45  
 Asp Pro Gly Leu Gln Gln Ala Phe Ala Asp Asp Ile Val Phe Met Ala  
 50 55 60  
 Ser Val Gly Ile Arg Pro Ile Val Val His Gly Gly Gly Pro Gln Ile  
 65 70 75 80  
 Asn Ala Met Leu Ala Glu Ser Ala Thr Pro Val Glu Phe Arg Asn Gly  
 85 90 95  
 Leu Arg Val Thr Ser Pro Glu Val Met Glu Val Val Arg Met Val Leu

```

      100      105      110
Val Gly Gln Val Gly Arg Gln Leu Val Asn Arg Ile Asn Ala Tyr Ala
      115      120      125
Pro Leu Ala Ala Gly Met Ser Gly Glu Asp Phe Gly Leu Phe Ser Ala
      130      135      140
Arg Lys Ser Arg Val Ile Val Asp Gly Glu Gln Ile Asp Met Gly Leu
      145      150      155      160
Val Gly Asp Ile Val Asp Val Asn Ile Asp Leu Val Ile Ser Met Leu
      165      170      175
Asp Arg Gly Gln Ile Pro Val Ile Ala Pro
      180      185

```

<210> 495  
 <211> 514  
 <212> DNA  
 <213> Homo sapiens

```

<400> 495
gcgcgcgcgaca ccggtgcccc gattagcgtg ccagtgggtg acgtcactaa gggtcacgtc
60
tggaatgtga caggtgacgt tcttaacgcc ngatccctcc acaatcgagg tgacnntgag
120
cgttggccga tccaccggga tccccgggcc ttcgatgacc ttgagcccga gaccgagatg
180
ctggagaccg gtattaaggt ccttgacttg ctgactcctt acgtcaaggg cggcaagatt
240
ggcctctttg gcggcgctgg tgtgggtaag acggtgctca ttcaggagat gatttaccgt
300
atcgcccaca acttcggcgg tacttcgggt ttcgccggtg tcggtgagcg taccgcgcag
360
ggtaacgacc tcatcaacga gatggacgag gccggtgtgc tcaaagacac cgccctggta
420
ttcgccaga tggacgagcc cccgggcacg cggtagagc tgtcgcgctg gcagccctgc
480
ggcccatgcc tggtaactg ctgtgggacc ttgg
514

```

<210> 496  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

```

<400> 496
Ala Arg Asp Thr Gly Ala Pro Ile Ser Val Pro Val Gly Asp Val Thr
1 5 10 15
Lys Gly His Val Trp Asn Val Thr Gly Asp Val Leu Asn Ala Xaa Ser
20 25 30
Leu His Asn Arg Gly Asp Xaa Glu Arg Trp Pro Ile His Arg Asp Pro
35 40 45
Pro Ala Phe Asp Asp Leu Glu Pro Glu Thr Glu Met Leu Glu Thr Gly
50 55 60
Ile Lys Val Leu Asp Leu Leu Thr Pro Tyr Val Lys Gly Gly Lys Ile
65 70 75 80
Gly Leu Phe Gly Gly Ala Gly Val Gly Lys Thr Val Leu Ile Gln Glu

```

```
<210> 497
<211> 662
<212> DNA
<213> Homo sapiens
```

```
<210> 498
<211> 191
<212> PRT
<213> Homo sapiens
```

674

35 40 45  
 Cys Leu His Ala Ser Cys His Thr Pro Ala Val Ile Pro Ala Arg Ala  
 50 55 60  
 Pro Ser Ala Glu Ala Glu Leu Cys Ser Ala Gln Ala Trp Asp Leu Pro  
 65 70 75 80  
 Arg Gln Ala Pro Val Gly Gly Ala Ala Pro Gly Lys Glu Ala Thr Ala  
 85 90 95  
 Ser Leu Asn Ile Leu Arg Cys Lys Val Val Ala Pro Arg Gly Val Ser  
 100 105 110  
 Val Lys Thr Gly Thr Arg Met Ala Gly Pro Ala Arg Leu Phe Pro His  
 115 120 125  
 Leu Ser Ala Ser Glu Ala Ser Leu Glu Asp Ser Gly Pro Arg Met Ser  
 130 135 140  
 Pro Arg Thr Ser Gln Ser Ala Ser Ser Ser Tyr Phe Cys Cys Ser Leu  
 145 150 155 160  
 Gly Pro Asp Leu Ala Lys Val Ser Gln Arg Gly Gly Pro Arg Ser Glu  
 165 170 175  
 Leu Ser Ser Cys Arg Gly Pro Arg Asp Gly Leu Gly Cys Lys Leu  
 180 185 190

&lt;210&gt; 499

&lt;211&gt; 444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 499

acgcgtgaag ggtgggcagt gttgagctga gtgagccctc ctccctgcaa tgctggagcc  
 60  
 ctgccttctg cctgaccctc tggcttctta agcagtctat acgtgagaag ccttttcttc  
 120  
 aagtgaagc ttctgagctc actacgagag cactggagct ggaacctctc tgggttcaaa  
 180  
 tcctcaactg ggggggttga ggagggttact tcacttctca aaacctcaat ttccttatct  
 240  
 gcaaaatggg gtaataggag cccctcttca tcaatgcttg gagggaaatgc ctggcacagt  
 300  
 agggcagtta ccgtcatgga gaacagaaaag gccccgagct atcctggatg tggtgagaat  
 360  
 gggtcctgga tcctgcctgc tcggcctttt cattctcttc ttcacctaca ggctcccaca  
 420  
 aagggcctct gaaaacacag ggtg  
 444

&lt;210&gt; 500

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 500

Met Thr Val Thr Ala Leu Leu Cys Gln Ala Phe Pro Pro Ser Ile Asp  
 1 5 10 15  
 Glu Glu Gly Leu Leu Leu Pro His Phe Ala Asp Lys Glu Ile Glu Val  
 20 25 30  
 Leu Arg Ser Glu Val Thr Ser Ser Asn Pro Pro Val Glu Asp Leu Asn

```

      35          40          45
Pro Glu Arg Phe Gln Leu Gln Cys Ser Arg Ser Glu Leu Arg Ser Phe
      50          55          60
His Leu Lys Lys Gly Leu Leu Thr Tyr Arg Leu Leu Arg Lys Pro Glu
65          70          75          80
Gly Gln Ala Glu Gly Arg Ala Pro Ala Leu Gln Gly Gly Gly Leu Thr
      85          90          95
Gln Leu Asn Thr Ala His Pro Ser Arg
      100          105

```

&lt;210&gt; 501

&lt;211&gt; 800

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 501

```

agatctgac cgagaagtgg ctgctcaggg aaatgactac tccatggcctt tcttaactca
60
ggtactcctt attcaatgag aggcctgagg tgagaccgcg catgcggcgc gtggatcgca
120
tggtgttagt gcacactagc aaggggctta ggtctccagc tgaggtcaga tgcacacttg
180
gaccttgtag tggggagtaa cacacatctc tgtgttcagc gaaccatcca ggagctgttt
240
gaagtttatt ctcccatgga tgatgctggc ttcccggtca aagctgagga gtttgtggtg
300
ctttctcagg aaccttctgt cacggaaacc attgcaccca aaattgcaag acctttcata
360
gagccctca agagtattga gtatctggag gaggatgcc agaatccgc acaggagggg
420
gtgctgggac cacacactga tgctctgtca tcagactctg agaacatgcc gtgtgatgaa
480
gaaccatccc aattagagga gctagctgac ttcattggagc agcttacacc aattgaaaaa
540
tatgctttaa attacctgga atcttgaggc agggcctgag agagcacgct gcgccgtact
600
tccagcagct gcggcagacc acggctccac gcctgctgca gttccctgag ctgaggctgg
660
tgagttcga ctcaggtatg cggcagttgg gggcgtggcc cgtgcgggag ctgcactggc
720
cctggatgat gaggcgctct tgatgtgatt cgtttcccag ggaagttgga agctttagct
780
atcttgcttc agaaactgaa
800

```

&lt;210&gt; 502

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 502

```

Met Asp Asp Ala Gly Phe Pro Val Lys Ala Glu Glu Phe Val Val Leu
1          5          10          15
Ser Gln Glu Pro Ser Val Thr Glu Thr Ile Ala Pro Lys Ile Ala Arg

```

20 25 30  
 Pro Phe Ile Glu Ala Leu Lys Ser Ile Glu Tyr Leu Glu Glu Asp Ala  
 35 40 45  
 Gln Lys Ser Ala Gln Glu Gly Val Leu Gly Pro His Thr Asp Ala Leu  
 50 55 60  
 Ser Ser Asp Ser Glu Asn Met Pro Cys Asp Glu Glu Pro Ser Gln Leu  
 65 70 75 80  
 Glu Glu Leu Ala Asp Phe Met Glu Gln Leu Thr Pro Ile Glu Lys Tyr  
 85 90 95  
 Ala Leu Asn Tyr Leu Glu Ser  
 100

<210> 503  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 503  
 nnacgcgttg tcgtctctcc gatcattgat tttgttgtat tctgcaatga tgtaaaggaa  
 60  
 gatgatgaca cggagaagtt taaagaagcc attgtgaaat ttcataaggct gtttgggatg  
 120  
 ccagaggaag agaaactcgt caactattac tcttgacagct attggaaggg gaaggtcccc  
 180  
 cgtcagggtt ggatgtacct cagcattaac cacctttgct tttattcttt tcttatggga  
 240  
 agggaagcga aactgggtcat ccggtgggta gacatcactc agcttgagaa gaatgcccc  
 300  
 ctgcttctgc ctgatgtgat caaagtggagc acacgggtcca gtgagcattt cttctctgta  
 360  
 ttctcaaca tcaacgagac cttcaagtta atggagcagc ttgccaacat agccatgagg  
 420  
 caactcttag acaatgaggg atttgaacaa gatcgatccc tgcccaaact caaaaggaaa  
 480  
 tctctaaaaa aagtgtctgc tctaaaacgt gatcttgatg cctgggccct tcacgcgt  
 538

<210> 504  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<400> 504  
 Xaa Arg Val Val Val Ser Pro Ile Ile Asp Phe Val Val Phe Cys Asn  
 1 5 10 15  
 Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile Val  
 20 25 30  
 Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val Asn  
 35 40 45  
 Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly Lys Val Pro Arg Gln Gly Trp  
 50 55 60  
 Met Tyr Leu Ser Ile Asn His Leu Cys Phe Tyr Ser Phe Leu Met Gly  
 65 70 75 80  
 Arg Glu Ala Lys Leu Val Ile Arg Trp Val Asp Ile Thr Gln Leu Glu

```

      85              90              95
Lys Asn Ala Pro Leu Leu Leu Pro Asp Val Ile Lys Val Ser Thr Arg
      100              105              110
Ser Ser Glu His Phe Phe Ser Val Phe Leu Asn Ile Asn Glu Thr Phe
      115              120              125
Lys Leu Met Glu Gln Leu Ala Asn Ile Ala Met Arg Gln Leu Leu Asp
      130              135              140
Asn Glu Gly Phe Glu Gln Asp Arg Ser Leu Pro Lys Leu Lys Arg Lys
      145              150              155              160
Ser Pro Lys Lys Val Ser Ala Leu Lys Arg Asp Leu Asp Ala Trp Ala
      165              170              175
Leu His Ala

```

&lt;210&gt; 505

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 505

```

gtgcacgaca ccgaacggta cgaacgtatc tcccaggcac gtcgcgagga acagcaggcc
60
atgctcggct acgacngctc aagaacctgt cgcattgacct tgctcaccgg gcagctggac
120
gacccctcca cgactccttg cggacgtgac gacgtctgtg ctggcccgtg gtactcagtc
180
gaggtcgatc agtcagccgc tgtgagagcc gtccaatccc tcaaccgggt gggagttccg
240
gtggaaccac gcgccgcctg gcccgagggt atggacgccc tccaggttgc gctcaagggt
300
cgcatcagtg ccgaggagat cgctgcagag ggccgcgtca tcgccagact ctccgatctg
360
ggttggggag gggcgctgcg c
381

```

&lt;210&gt; 506

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 506

```

Val His Asp Thr Glu Arg Tyr Glu Arg Ile Ser Gln Ala Arg Arg Glu
1      5      10      15
Glu Gln Gln Ala Met Leu Gly Tyr Asp Xaa Ser Arg Thr Cys Arg Met
20      25      30
Thr Leu Leu Thr Gly Gln Leu Asp Asp Pro Ser Thr Thr Pro Cys Gly
35      40      45
Arg Cys Asp Val Cys Ala Gly Pro Trp Tyr Ser Val Glu Val Asp Gln
50      55      60
Ser Ala Ala Val Arg Ala Val Gln Ser Leu Asn Arg Val Gly Val Pro
65      70      75      80
Val Glu Pro Arg Ala Ala Trp Pro Ala Gly Met Asp Ala Leu Gln Val
85      90      95
Ala Leu Lys Gly Arg Ile Ser Ala Glu Glu Ile Ala Ala Glu Gly Arg

```



100                      105                      110  
 Val Ile Ala Arg Leu Ser Asp Leu Gly Trp Gly Gly Ala Leu Arg  
 115                      120                      125

<210> 507  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

<400> 507  
 gccggcgtgt tcaacctcat ggtgtgggcc ttcattaccg acgtcatcga tgcccaggag  
 60  
 gtcatgtccg gggagcgtga agacggtgtc atctatggcg tgaactcctt cgcccgcaaa  
 120  
 cttgcccagg ccattgccgg tggaatcggc ggagccatgc tgacgatgat cggctaccag  
 180  
 tcctcctccc aagggtgtgc cgttcagtcg gagtccgtcg tcaatcacct gtacacgctc  
 240  
 gccaccgcca tcccgacgat ctgctgcctc ggcgctgccc tgctcatgct gggctaccgc  
 300  
 ctcaccgcgc acaaggtggt cgccaacgcc gacgagttgg ctgctcgcca cgagtagacg  
 360  
 gccgagcaaa actcctgacc cataacggag gcacatcatg gacacgctca tgcggatcac  
 420  
 cgaccacttg acaacctcgc cgggtatcca attgaaaatt gacaagcgat ggggtgcctc  
 480  
 cgtcacattt gtgacgcgt  
 499

<210> 508  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 508  
 Ala Gly Val Phe Asn Leu Met Val Trp Ala Phe Ile Thr Asp Val Ile  
 1                      5                      10                      15  
 Asp Ala Gln Glu Val Met Ser Gly Glu Arg Glu Asp Gly Val Ile Tyr  
 20                      25                      30  
 Gly Val Asn Ser Phe Ala Arg Lys Leu Ala Gln Ala Ile Ala Gly Gly  
 35                      40                      45  
 Ile Gly Gly Ala Met Leu Thr Met Ile Gly Tyr Gln Ser Ser Ser Gln  
 50                      55                      60  
 Gly Gly Ala Val Gln Ser Glu Ser Val Val Asn His Leu Tyr Thr Leu  
 65                      70                      75                      80  
 Ala Thr Ala Ile Pro Thr Ile Cys Cys Leu Gly Ala Ala Leu Leu Met  
 85                      90                      95  
 Leu Gly Tyr Pro Leu Thr Arg Asp Lys Val Val Ala Asn Ala Asp Glu  
 100                      105                      110  
 Leu Ala Arg Arg His Ala Val Gln Ala Glu Gln Asn Ser  
 115                      120                      125

<210> 509  
 <211> 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 509

ttggccatgg atttggtcgc caagttcagt cccaaagatg tcacgtctta tctaattggac  
 60  
 ttccgggacca atggtgtggc accactaggc caattaccac aggtggccga caccttgctt  
 120  
 ttggatcata cggagaagat tgccaagttt gtacgcatca tggagcggga gctcaaccgg  
 180  
 cgtaagaagc tcttggtccga ctacggtgtt ggtacactag agctctaccg tcaggctagc  
 240  
 ggtcagcaag agccggccat cgtcatcctg ctggacagtt atgagtccat gaaggaagag  
 300  
 gcctatgaag cggagctctt cacgctcttg gtgcggatct cccgggaagg tctcagcatc  
 360

&lt;210&gt; 510

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 510

Leu	Ala	Met	Asp	Leu	Ala	Arg	Lys	Phe	Ser	Pro	Lys	Asp	Val	Thr	Leu
1				5				10					15		
Tyr	Leu	Met	Asp	Phe	Gly	Thr	Asn	Gly	Val	Ala	Pro	Leu	Gly	Gln	Leu
			20					25					30		
Pro	Gln	Val	Ala	Asp	Thr	Leu	Leu	Leu	Asp	His	Thr	Glu	Lys	Ile	Ala
		35					40					45			
Lys	Phe	Val	Arg	Ile	Met	Glu	Arg	Glu	Leu	Asn	Arg	Arg	Lys	Lys	Leu
	50					55					60				
Leu	Ser	Asp	Tyr	Gly	Val	Gly	Thr	Leu	Glu	Leu	Tyr	Arg	Gln	Ala	Ser
65					70					75				80	
Gly	Gln	Gln	Glu	Pro	Ala	Ile	Val	Ile	Leu	Leu	Asp	Ser	Tyr	Glu	Ser
			85						90					95	
Met	Lys	Glu	Glu	Ala	Tyr	Glu	Ala	Glu	Leu	Phe	Thr	Leu	Leu	Val	Arg
		100						105						110	
Ile	Ser	Arg	Glu	Gly	Leu	Ser	Ile								
		115					120								

&lt;210&gt; 511

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 511

ntgcgaacc gggctatgc ggtgctccag cccaatttcc gggatcggg cggttatggc  
 60  
 actgcgttcg gcatgccgg catcgccag atcgggcgca agatgcagga cgatctcgac  
 120  
 gacgggatgg actggctggt caaggagggc atcgtcgaca agggccgggt gtgcatcgtc  
 180  
 ggggcctcct atggcggcta tgccgcgatg tggggcgca tccgcaatcc cgaacgctat  
 240

cgetgcgcgg cgagcctggc ggggggttgcc gattaaggcc atgctcaaatt ataaccggcg  
 300  
 ctatctcgac aaggaggcgg gcaagcgctg gccgccccgn tcaaccggcg aaccgaatt  
 360  
 c  
 361

<210> 512  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 512  
 Xaa Ala Asn Arg Gly Tyr Ala Val Leu Gln Pro Asn Phe Arg Gly Ser  
 1 5 10 15  
 Gly Gly Tyr Gly Thr Ala Phe Gly Asp Ala Gly Ile Gly Gln Ile Gly  
 20 25 30  
 Arg Lys Met Gln Asp Asp Leu Asp Asp Gly Met Asp Trp Leu Val Lys  
 35 40 45  
 Glu Gly Ile Val Asp Lys Gly Arg Val Cys Ile Val Gly Ala Ser Tyr  
 50 55 60  
 Gly Gly Tyr Ala Ala Met Trp Gly Ala Ile Arg Asn Pro Glu Arg Tyr  
 65 70 75 80  
 Arg Cys Ala Ala Ser Leu Ala Gly Val Ala Asp  
 85 90

<210> 513  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 513  
 nnatgcagac tagaagatgg catgacggtt ttggctggcg gtttcgggct atgcggcatt  
 60  
 ccagaaaatc tgattcaaga gatcaaacga cgccagactt gtgatttgac catagtgtca  
 120  
 aataactgtg gtgtagatgg ttttggttta ggggttttgc tagaagataa gcaagtacgc  
 180  
 aaaatggtgt cttcttatgt gggtgaaaat gcactgtttg agaagcaatt attacaaggt  
 240  
 gagttggaag tcgagctcac tctcaaggc actcttgccg aaaaactacg cgctggcggc  
 300  
 gcgggaattc ctgccttttt cacagcaacg ggtgtaggta cacctattgg tgagggtaaa  
 360  
 gacacgct  
 369

<210> 514  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 514  
 Xaa Cys Arg Leu Glu Asp Gly Met Thr Val Leu Ala Gly Gly Phe Gly

```

      1           5           10           15
Leu Cys Gly Ile Pro Glu Asn Leu Ile Gln Glu Ile Lys Arg Arg Gln
      20           25           30
Thr Cys Asp Leu Thr Ile Val Ser Asn Asn Cys Gly Val Asp Gly Phe
      35           40           45
Gly Leu Gly Val Leu Leu Glu Asp Lys Gln Val Arg Lys Met Val Ser
      50           55           60
Ser Tyr Val Gly Glu Asn Ala Leu Phe Glu Lys Gln Leu Leu Gln Gly
      65           70           75           80
Glu Leu Glu Val Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Lys Leu
      85           90           95
Arg Ala Gly Gly Ala Gly Ile Pro Ala Phe Phe Thr Ala Thr Gly Val
      100          105          110
Gly Thr Pro Ile Gly Glu Gly Lys Asp Thr Arg
      115          120

```

<210> 515  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

```

<400> 515
cggtgggacg agaaggccgc cggcaactgc gcgatcgact acgggttcca ccagatcctc
60
tccgacgtgc aggactcgtc gctgaccgag atggacgagc tgatcaccca gggcgtagaca
120
tccttcaagc tcttcgtggc ctacaagggc gtcttctctc cggacgacgg gcagatcctg
180
cgggcgttcc agaagggcgc cgacaacggc gcgatgatga tgatgcacgc cgagaacggc
240
gcgatcatcg acgtgctcgt gcagcaggcg ctcgaggccg ggaagaccac cccgtactac
300
cacggcatca gccggccgtg gcaggccgag gaggaggcca cccaccgcgc gatcatgatc
360
gccgacctga ccggtgcgcc gttgtac
387

```

<210> 516  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

```

<400> 516
Ala Trp Asp Glu Lys Ala Ala Gly Asn Cys Ala Ile Asp Tyr Gly Phe
      1           5           10           15
His Gln Ile Leu Ser Asp Val Gln Asp Ser Ser Leu Thr Ala Met Asp
      20           25           30
Glu Leu Ile Thr Glu Gly Val Thr Ser Phe Lys Leu Phe Val Ala Tyr
      35           40           45
Lys Gly Val Phe Leu Ser Asp Asp Gly Gln Ile Leu Arg Ala Phe Gln
      50           55           60
Lys Gly Ala Asp Asn Gly Ala Met Met Met Met His Ala Glu Asn Gly
      65           70           75           80
Ala Ile Ile Asp Val Leu Val Gln Gln Ala Leu Glu Ala Gly Lys Thr

```

85 90 95  
 Thr Pro Tyr Tyr His Gly Ile Ser Arg Pro Trp Gln Ala Glu Glu Glu  
 100 105 110  
 Ala Thr His Arg Ala Ile Met Ile Ala Asp Leu Thr Gly Ala Pro Leu  
 115 120 125  
 Tyr

<210> 517  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 517  
 acgcgtgaag ggctgggtggg caggccttgc gccccctctg gggacagctc tcctccaccc  
 60  
 agacccttc gggccaacag tggggagggg ctgccgtctg agccactgtt ccgacagggg  
 120  
 attcgcgagt tccgggggag ctggggactg agctgcgggc ctctgggct ggggctcttc  
 180  
 tccgaggttg gaggcagctt tagaaacttg agaccctag ctggagaggg cagaaggggt  
 240  
 ccctgagctt cccagggaga aggggggcca atttgagct tgcttttcac ctgagatgag  
 300  
 gaatgggggt ggccaggccg agagcccagt ggggcatccc cagcaccat gaacatgcta  
 360  
 aggaagggga ggggcc  
 377

<210> 518  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 518  
 Met Phe Met Gly Ala Gly Asp Ala Pro Leu Gly Ser Arg Pro Gly His  
 1 5 10 15  
 Pro His Ser Ser Ser Gln Val Lys Ser Lys Leu Gln Ile Gly Pro Pro  
 20 25 30  
 Ser Pro Gly Glu Ala Gln Gly Pro Leu Leu Pro Ser Pro Ala Arg Gly  
 35 40 45  
 Leu Lys Phe Leu Lys Leu Pro Thr Ser Glu Lys Ser Pro Ser Pro  
 50 55 60  
 Gly Gly Pro Gln Leu Ser Pro Gln Leu Pro Arg Asn Ser Arg Ile Pro  
 65 70 75 80  
 Cys Arg Asn Ser Gly Ser Asp Gly Ser Pro Ser Pro Leu Leu Ala Arg  
 85 90 95  
 Arg Gly Leu Gly Gly Gly Glu Leu Ser Pro Glu Gly Ala Gln Gly Leu  
 100 105 110  
 Pro Thr Ser Pro Ser Arg  
 115

<210> 519  
 <211> 311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 519

gcgcgccagg gggaaggag agaaaacaca gaaaaatgag ggggaaatac cagatactga  
 60  
 agaatttaaa ttattataaa ggaacctttt ctgcaactct gaaaaatggt agaatatcca  
 120  
 aagaaattga taattttcta ggaaaacatg acttaccaaa attaactcta gaaaagaatc  
 180  
 gatacacatc agtaacaaca gaagttgaga aagtagttaa catattgcca aacctggaat  
 240  
 tcatgattga attctttgag atctactgtg agtacatact ctgcctctgt tcagctgttc  
 300  
 cagaacttaa g  
 311

&lt;210&gt; 520

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 520

Met	Arg	Gly	Lys	Tyr	Gln	Ile	Leu	Lys	Asn	Leu	Asn	Tyr	Tyr	Lys	Gly
1				5					10					15	
Thr	Phe	Ser	Ala	Thr	Leu	Lys	Asn	Val	Arg	Ile	Ser	Lys	Glu	Ile	Asp
		20					25					30			
Asn	Phe	Leu	Gly	Lys	His	Asp	Leu	Pro	Lys	Leu	Thr	Leu	Glu	Lys	Asn
	35					40					45				
Arg	Tyr	Thr	Ser	Val	Thr	Thr	Glu	Val	Glu	Lys	Val	Val	Asn	Ile	Leu
	50				55				60						
Pro	Asn	Leu	Glu	Phe	Met	Ile	Glu	Phe	Phe	Glu	Ile	Tyr	Cys	Glu	Tyr
65				70				75					80		
Ile	Leu	Cys	Leu	Cys	Ser	Ala	Val	Pro	Glu	Leu	Lys				
			85					90							

&lt;210&gt; 521

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 521

nnngatgcca cgccgggtcta cggaatctcc accgggttcg gcgcgcttgc ccgcgccac  
 60  
 attccagaag agatgcgcgc gcagctgcag ctgtccctgg tgcgtccca cgcgccggc  
 120  
 accggccttg aggtggaaga agaagtaatt cgcgcgctca tgetgctgcg cctatccacc  
 180  
 ctgtgtaccg gccgtaccg cgtgcgcccc gtggtggtag aaacttatgc caaggcgctc  
 240  
 aacgcgggca tcgtgccggg ggtgcgcgaa tacgggtcgc tgggctgctc cggcgacttg  
 300  
 gccccgctgg ctcaactgcg cctagcgctg ttgggtgagg gtgaggtacg cn  
 352

<210> 522  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 522  
 Xaa Asp Ala Thr Pro Val Tyr Gly Ile Ser Thr Gly Phe Gly Ala Leu  
 1 5 10 15  
 Ala Arg Arg His Ile Pro Glu Glu Met Arg Ala Gln Leu Gln Leu Ser  
 20 25 30  
 Leu Val Arg Ser His Ala Ala Gly Thr Gly Pro Glu Val Glu Glu Glu  
 35 40 45  
 Val Ile Arg Ala Leu Met Leu Leu Arg Leu Ser Thr Leu Cys Thr Gly  
 50 55 60  
 Arg Thr Gly Val Arg Pro Val Val Val Glu Thr Tyr Ala Lys Ala Leu  
 65 70 75 80  
 Asn Ala Gly Ile Val Pro Gly Val Arg Glu Tyr Gly Ser Leu Gly Cys  
 85 90 95  
 Ser Gly Asp Leu Ala Pro Leu Ala His Cys Ala Leu Ala Leu Leu Gly  
 100 105 110  
 Glu Gly Glu Val Arg  
 115

<210> 523  
 <211> 693  
 <212> DNA  
 <213> Homo sapiens

<400> 523  
 agcgccttcca cagtcgcgca aactcctctt ggtctagccg cccattcaact ttcagttcca  
 60  
 tcagagccac caagctgcgg caccatctaa ggagaacatg tcccctggag gtctgttag  
 120  
 aagctcctgg ttgagaaggc cctgaagctg ggtggcatca atgtccagcc tctgttgagc  
 180  
 atatctgttg aaaatgcttt gttgggagcc atgttctgaa gggcttcctt tcattctgag  
 240  
 gttgaaatgg ctgctcaggt gctgtcact gtctggcatt ttcaggaaga ttcggagcaa  
 300  
 gaactccgct gattttctcc gtgtctgtgc aaccacaaca tagttcccag ggctcagatg  
 360  
 gtaagtcacg gtgaagttgc ggcggaattt attatttgag ctttggacag tgtttctgaa  
 420  
 cgaggaaaaa aacacgggtg gaaatttctc ccggaaccgc tgtgagccag ccagaatcac  
 480  
 ttggaaatcg agtggaaatt ttgcatcttc tgctttcaaa ttgatgggtg tgacagcaac  
 540  
 tgtgacgcac acgacaacat tgggtgcttc cattggctct tgcacagaga agttgaattg  
 600  
 agcatcattt ccgggtcttc ctggcgtggt tctagaatc attgcttctt aaacattatt  
 660  
 tgggaccatc cttcgtggag tgtgtttcca tgg  
 693

<210> 524  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 524  
 Met Ile Leu Gly Asn Thr Pro Gly Gly Pro Gly Asn Asp Ala Gln Phe  
 1 5 10 15  
 Asn Phe Ser Val Gln Glu Pro Met Glu Gly Thr Asn Val Val Val Cys  
 20 25 30  
 Val Thr Val Ala Val Thr Pro Ser Asn Leu Lys Ala Glu Asp Ala Lys  
 35 40 45  
 Phe Pro Leu Asp Phe Gln Val Ile Leu Ala Gly Ser Gln Arg Phe Arg  
 50 55 60  
 Glu Lys Phe Pro Pro Val Phe Phe Ser Ser Phe Arg Asn Thr Val Gln  
 65 70 75 80  
 Ser Ser Asn Asn Lys Phe Arg Arg Asn Phe Thr Met Thr Tyr His Leu  
 85 90 95  
 Ser Pro Gly Asn Tyr Val Val Val Ala Gln Thr Arg Arg Lys Ser Ala  
 100 105 110  
 Glu Phe Leu Leu Arg Ile Phe Leu Lys Met Pro Asp Ser Asp Arg His  
 115 120 125  
 Leu Ser Ser His Phe Asn Leu Arg Met Lys Gly Ser Pro Ser Glu His  
 130 135 140  
 Gly Ser Gln Gln Ser Ile Phe Asn Arg Tyr Ala Gln Gln Arg Leu Asp  
 145 150 155 160  
 Ile Asp Ala Thr Gln Leu Gln Gly Leu Leu Asn Gln Glu Leu Leu Thr  
 165 170 175  
 Gly Pro Pro Gly Asp Met Phe Ser Leu Asp Gly Ala Ala Ala Trp Trp  
 180 185 190  
 Leu

<210> 525  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

<400> 525  
 nggcaagttg caaagagagc ctcagaggtc cgaagagcgc tgcgctccta ctgcggttcg  
 60  
 cttcttctctc ttctcggttc cctactgtga aatcgcagcg acatttataa aggcctccgg  
 120  
 gtcctaccga gaccgatccg cagcggttg cccggtcgcg cctattgcat cgggagcccc  
 180  
 cgagcaccgg cgaaggactg gcgggtgggg tagggagggtg gcggcgggcg catggcgagg  
 240  
 ttcccgaagg ccgacctggc cgctgcagga gttatgttac ttgccaactt cttcacggac  
 300  
 cagtttcagt tcgccgatgg gaaacccgga gaccaaattc ttgattggca gtatggagtt  
 360  
 actcaggcct tccctcacac agaggaggag gtggaagttg attcacacgc gtacagccac  
 420



aggtggaaaa gaaacttggga ctttctcaag gcggtagaca cgaaccgagc aagcgtcggc  
 480  
 caagactctc ttgagcccag aagcttcaca gacctgctgc tggatgatgg gcaggacaat  
 540  
 aacactcaga tcgaggagga tacagaccac aattactata tatctcgaat atatgggtcca  
 600  
 tctgattctg ccagccggga tttatgggtg aacatagacc aaatggaaaa agataaagtg  
 660  
 aagattcatg gaattattgt caatactcat cggcaagctg caagagtga tctgtccttc  
 720  
 gattttccat tttatggcca ctctctacgt gaaatcactg tggcaaccgg gggtttcata  
 780  
 tacactggag aagtcgtaca tcgaatgcta acagccacac agtacatagc acctttaatg  
 840  
 gcaaatttcg atcccagtg atccagaaat tcaactgtca gatattttga taatggcaca  
 900  
 gcacttgtgg tccagtggga ccatgtacat ctccaggata attataacct gggaagcttc  
 960  
 acattccagg caaccctgct catggatgga cgaatcatct ttggatataa agaaattcct  
 1020  
 gtcttggtca cacagataag ttcaaccaat catccagtga aagtcggact gtccgatgca  
 1080  
 tttgtcgttg tccacaggat c  
 1101

&lt;210&gt; 526

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 526

Met Ala Arg Phe Pro Lys Ala Asp Leu Ala Ala Ala Gly Val Met Leu  
 1 5 10 15  
 Leu Cys His Phe Thr Asp Gln Phe Gln Phe Ala Asp Gly Lys Pro  
 20 25 30  
 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro  
 35 40 45  
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg  
 50 55 60  
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala  
 65 70 75 80  
 Ser Val Gly Gln Asp Ser Leu Glu Pro Arg Ser Phe Thr Asp Leu Leu  
 85 90 95  
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp  
 100 105 110  
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser  
 115 120 125  
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys  
 130 135 140  
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn  
 145 150 155 160  
 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr  
 165 170 175  
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met

	180		185		190										
Leu	Thr	Ala	Thr	Gln	Tyr	Ile	Ala	Pro	Leu	Met	Ala	Asn	Phe	Asp	Pro
	195						200					205			
Ser	Val	Ser	Arg	Asn	Ser	Thr	Val	Arg	Tyr	Phe	Asp	Asn	Gly	Thr	Ala
	210					215					220				
Leu	Val	Val	Gln	Trp	Asp	His	Val	His	Leu	Gln	Asp	Asn	Tyr	Asn	Leu
	225				230					235					240
Gly	Ser	Phe	Thr	Phe	Gln	Ala	Thr	Leu	Leu	Met	Asp	Gly	Arg	Ile	Ile
				245					250					255	
Phe	Gly	Tyr	Lys	Glu	Ile	Pro	Val	Leu	Val	Thr	Gln	Ile	Ser	Ser	Thr
		260						265				270			
Asn	His	Pro	Val	Lys	Val	Gly	Leu	Ser	Asp	Ala	Phe	Val	Val	Val	His
		275					280					285			
Arg	Ile														
	290														

&lt;210&gt; 527

&lt;211&gt; 5343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 527

```

nngtgccgtg tgctcctcac attcacgcag actgagactg agctgcccga ggaagagtgt
60
gaaggcccca agctgcccac cgaacggccc tgcttctctg aagcatgcga tgagagcccg
120
gcctcccag agctagacat cctctcctc gaggacagtg agacggctta cgactgggag
180
tacgtgggt tcacccttg cacagcaaca tgcttgggag gccatcaaga agccatagca
240
gtgtgcttac atatccagac ccagcagaca gtcaatgaca gcttgtgtga tatgggccac
300
cgtcctccag ccatgagcca ggctgtaac acagagccct gtccccccag gtggcatgtg
360
ggctcttggg ggccctgtct agctacctgt ggagttggaa ttcagaccct agatgtgtac
420
tgctgcacc caggggagac cctgcccct cctgaggagt gccgagatga aaagcccat
480
gctttacaag catgcaatca gtttgactgc cctcctggct ggcacattga agaattggag
540
cagtgttcca ggacttgtgg cgggggaact cagaacagaa gagtcacctg tcggcagctg
600
ctaacggatg gcagcttttt gaatctctca gatgaattgt gccaaggacc caaggcatcg
660
tctcacaagt cctgtgccag gacagactgt cctccacatt tagctgtggg agactggctg
720
aagtgttctg tcagttgtgg tgttggaaac cagagaagaa agcaggtgtg tcaaaggctg
780
gcagccaaag gtcggcgcat cccctcagt gagatgatgt gcagggatct accagggtcg
840
cctcttgtaa gatcttgcca gatgcctgag tgcagtaaaa tcaaatcaga gatgaagaca
900
aaacttggtg agcaggggtc gcagatcctc agtgtccaga gactctacat tcagacaagg
960

```

gaagagaagc gtattaacct gaccattggt agcagagcct atttgctgcc caacacatcc  
1020  
gtgattatta agtgccccgt ggcacgattc cagaaatctc tgatccagtg ggagaaggat  
1080  
ggccgttgcc tgcagaactc caaacggctt ggcacacca agtcaggctc actaaaaatc  
1140  
cacggtcttg ctgccccga catcggtggtg taccggtgca ttgcaggctc tgcacaggaa  
1200  
acagttgtgc tcaagctcat tggactgac aaccggctca tgcacgccc agccctcagg  
1260  
gagcctatga gggaatatcc tgggatggac cacagcgaag ccaatagttt gggagtcaca  
1320  
tggcacaaaa tgaggcaaat gtggaataac aaaaatgacc tttatctgga tgatgaccac  
1380  
attagtaacc agcctttctt gagagctctg ttaggccact gcagcaattc tgcaggaagc  
1440  
accaactcct gggagttgaa gaataagcag tttgaagcag cagttaaaca aggagcatat  
1500  
agcatggata cagcccagtt tgatgagctg ataagaaaca tgagtcagct catggaaacc  
1560  
ggagaggtca gcgatgatct tgcgtcccag ctgatatac agctggtggc cgaattagcc  
1620  
aaggcacagc caacacacat gcagtggcgg ggcacccagg aagagacacc tcctgctgct  
1680  
cagctcagag gggaacagg gagtgtgtcc caaagctcgc atgcaaaaaa ctcaggcaag  
1740  
ctgacattca agccgaaagg acctgttctc atgaggcaaa gccaacctcc ctcaatttca  
1800  
tttaataaaa caataaattc caggattgga aatacagtat acattacaaa aaggacagag  
1860  
gtcatcaata tactgtgtga ccttattacc cccagtgagg ccacatatac atggaccaag  
1920  
gatggaacct tgttacagcc ctcagtaaaa ataattttgg atggaactgg gaagatacag  
1980  
atacagaatc ctacaaggaa agaacaaggc atatatgaat gttctgtagc taatcatctt  
2040  
ggttcagatg tggaaagttc ttctgtgctg tatgcagagg cacctgtcat cttgtctggt  
2100  
gaaagaaata tcaccaaacc agagcacaac catctgtctg ttgtggttgg aggcacgtg  
2160  
gaggcagccc ttggagcaaa cgtgacaatc cgatgtcctg taaaagggtg ccctcagcct  
2220  
aatataactt ggttgaagag aggaggatct ctgagtggca atgtttcctt gcttttcaat  
2280  
ggatccctgt tgttgagaa tgtttccctt gaaaatgaag gaacctacgt ctgcatagcc  
2340  
accaatgctc ttggaaaggc agtggcaaca tctgtactcc acttgctgga acgaagatgg  
2400  
ccagagagta gaatcgtatt tctgcaagga cataaaaagt acattctcca ggcaaccaac  
2460  
actagaacca acagcaatga cccaacagga gaacccccgc ctcaagagcc tttttgggag  
2520  
cctggtaact ggtcacattg ttctgccacc tgtggtcatt tgggagcccc cattcagaga  
2580

ccccagtgtg tgatggccaa tgggcaggaa gtgagtgagg ccctgtgtga tcagcctcca  
2640  
gaagccaactg gctgggtttg agccctgtaa catccgggac tgcccagcga ggtggttcac  
2700  
aagtgtgtgg tcacagtgtc ctgtgtcttg cgggtgaagga taccacagtc ggcagggtgac  
2760  
gtgcaagcgg acaaaagcca atggaactgt gcagggtgtg tctccaagag catgtgcccc  
2820  
taaagaccgg cctctgggaa gaaaaccatg ttttggtcac ccatgtgttc agtgggaacc  
2880  
agggaaccgg tgtcctggac gttgcatggg ccgtgctgtg aggatgcagc agcgtcacac  
2940  
agcttgtcaa cacaacagct ctgactccaa ctgtgatgac agaaagagac ccaccttaag  
3000  
aaggaaactgc acatcagggg cctgtgatgt gtgttggcac acaggccctt ggaagccctg  
3060  
tacagcagcc tgtggcaggg gtttccagtc tcggaaagtc gactgtatcc acacaaggag  
3120  
ttgcaaacct gtggccaaga gacactgtgt acagaaaaag aaaccaattt cctggcggca  
3180  
ctgtcttggg cctcctgtg atagagactg cacagacaca actcactact gtatgtttgt  
3240  
aaaacatctt aatttgtgtt ctctagaccg ctacaaacaa aggtgctgcc agtcatgtca  
3300  
agagggataa acctttggag gggtcatgat gctgctgtga agataaaagt agaataataa  
3360  
agctcttttc cccatgtgcg tgattcaaaa acatgtattt cttaaagac tagattctat  
3420  
ggatcaaaac gaggttgatg caaaaacacc actgttaagg tgtaaagtga aattttccaa  
3480  
tggtagtttt atattccaat tttttaaagt gatgtattca aggatgaaca aaatactata  
3540  
gcatgcatgc cactgcactt gggacctcat catgtcagtt gaatcgagaa atcaccaaga  
3600  
ttatgagtgc atcctcacgt gctgcctctt tcctgtgata tgtagactag cacagagtgg  
3660  
tacatcctaa aaacttggga aacacagcaa cccatgactt cctcttctct caagttgcag  
3720  
gttttcaaca gttttataag gtatttgcac tttagaagct ctggccagta gttgttaaga  
3780  
tgttggcatt aatggcattt tcatagatcc ttggtttagt ctgtgaaaaa gaaaccatct  
3840  
ctctggatag gctgtcacac tgactgacct aagggttcat ggaagcatgg catcttgtcc  
3900  
ttgcttttag aacacccatg gaagaaaaca cagagtagat attgctgtca tttatacaac  
3960  
tacagaaatt tatctatgac ctaatgaggc atctcggaag tcaaagaaga gggaaagtta  
4020  
accttttcta ctgatttcgt agtatattca gagctttctt ttaagagctg tgaatgaaac  
4080  
tttttctaag cactatteta ttgcacacaa acagaaaacc aaagccttat tagacctaat  
4140  
ttatgcataa agtagtatcc ctgagaactt tattttggaa aatttataag aaagtaatcc  
4200

aaataagaaa cacgatagtt gaaaataatt tttatagtaa ataattgttt tgggctgatt  
 4260  
 tttcagtaaa tccaaagtga cttaggttag aagttacact aaggaccagg ggttgaatc  
 4320  
 agaatttagt ttaagatttg aggaaaaggg taagggttag tttcagtttt aggattagag  
 4380  
 ctagaattgg gttaggtgag aaagaaagtt aaggttaagg ctagagttgt ctttaagggt  
 4440  
 tagggtagg accaggttag gtcagggttg gattgggttt agattggggc cagtgtcggg  
 4500  
 gttagtata gtgtcaggat ggaggttagg tttggagtaa gcgttggtgc tgaagttagt  
 4560  
 tcaggctagc attaaattgt aagttctgaa gctgatttgg ttatgggggc tttccctgt  
 4620  
 atactaccag ttgtgtcttt agatggcaca caagtccaaa taagtgggca tacttcttta  
 4680  
 ttcagggtct cagctgcttg tacacctgct gcctacatct tcttggcaac aaagttacct  
 4740  
 gccacaggct ctgctgagcc tagttcctgg tcagtaataa ctgaacagtg catthttggct  
 4800  
 ttggatgtgt ctgtggacaa gcttctgag tttctctacc atattctgag cacacggctc  
 4860  
 cttttgttct aacttcagct tcactgacac tgggttgagc actactgtat gtggaggggt  
 4920  
 tgggtgattg gaatggatgg gggacagtga ggaggacaca ccagccatt agttgtta  
 4980  
 catcaatcac atctgattgt tgaagggttat taaattaaaa gaaagatcat ttgtaacata  
 5040  
 ctctttgtat atatttatta tatgaaaggt gcaatatttt atttgtaca gtatgtaata  
 5100  
 aagacatggg acatatattt ttcttattaa caaaatttca tattaaattg cttcactttg  
 5160  
 tattttaaagt taaaagttac ttttttcat ttgtattgt actttcattg ttgtcattca  
 5220  
 attgacattc ctgtgtactg ttttttacta ctgtttttat aacatgagag ttaatgtttc  
 5280  
 tgtttcatga tccttatgta attcagaaat aaatttactt tgattattca gtggcatcct  
 5340  
 tat  
 5343

&lt;210&gt; 528

&lt;211&gt; 886

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 528

Xaa	Cys	Arg	Val	Leu	Leu	Thr	Phe	Thr	Gln	Thr	Glu	Thr	Glu	Leu	Pro
1				5					10					15	
Glu	Glu	Glu	Cys	Glu	Gly	Pro	Lys	Leu	Pro	Thr	Glu	Arg	Pro	Cys	Phe
			20					25					30		
Leu	Glu	Ala	Cys	Asp	Glu	Ser	Pro	Ala	Ser	Arg	Glu	Leu	Asp	Ile	Pro
		35					40					45			
Leu	Pro	Glu	Asp	Ser	Glu	Thr	Ala	Tyr	Asp	Trp	Glu	Tyr	Ala	Gly	Phe

50		55		60
Thr Pro Cys Thr Ala	Thr Cys Leu Gly Gly	His Gln Glu Ala Ile Ala		
65	70	75	80	
Val Cys Leu His Ile	Gln Thr Gln Gln Thr	Val Asn Asp Ser Leu Cys		
	85	90	95	
Asp Met Val His Arg	Pro Pro Ala Met Ser	Gln Ala Cys Asn Thr Glu		
	100	105	110	
Pro Cys Pro Pro Arg Trp	His Val Gly Ser Trp	Gly Pro Cys Ser Ala		
	115	120	125	
Thr Cys Gly Val Gly Ile	Gln Thr Arg Asp Val	Tyr Cys Leu His Pro		
	130	135	140	
Gly Glu Thr Pro Ala Pro	Pro Glu Glu Cys Arg	Asp Glu Lys Pro His		
145	150	155	160	
Ala Leu Gln Ala Cys Asn	Gln Phe Asp Cys Pro	Pro Gly Trp His Ile		
	165	170	175	
Glu Glu Trp Gln Gln Cys	Ser Arg Thr Cys Gly	Gly Gly Thr Gln Asn		
	180	185	190	
Arg Arg Val Thr Cys Arg	Gln Leu Leu Thr Asp	Gly Ser Phe Leu Asn		
	195	200	205	
Leu Ser Asp Glu Leu Cys	Gln Gly Pro Lys Ala	Ser Ser His Lys Ser		
	210	215	220	
Cys Ala Arg Thr Asp Cys	Pro Pro His Leu Ala	Val Gly Asp Trp Ser		
225	230	235	240	
Lys Cys Ser Val Ser Cys	Gly Val Gly Ile Gln	Arg Arg Lys Gln Val		
	245	250	255	
Cys Gln Arg Leu Ala Ala	Lys Gly Arg Arg Ile	Pro Leu Ser Glu Met		
	260	265	270	
Met Cys Arg Asp Leu Pro	Gly Leu Pro Leu Val	Arg Ser Cys Gln Met		
	275	280	285	
Pro Glu Cys Ser Lys Ile	Lys Ser Glu Met Lys	Thr Lys Leu Gly Glu		
	290	295	300	
Gln Gly Pro Gln Ile Leu	Ser Val Gln Arg Val	Tyr Ile Gln Thr Arg		
305	310	315	320	
Glu Glu Lys Arg Ile Asn	Leu Thr Ile Gly Ser	Arg Ala Tyr Leu Leu		
	325	330	335	
Pro Asn Thr Ser Val Ile	Ile Lys Cys Pro Val	Arg Arg Phe Gln Lys		
	340	345	350	
Ser Leu Ile Gln Trp Glu	Lys Asp Gly Arg Cys	Leu Gln Asn Ser Lys		
	355	360	365	
Arg Leu Gly Ile Thr Lys	Ser Gly Ser Leu Lys	Ile His Gly Leu Ala		
	370	375	380	
Ala Pro Asp Ile Gly Val	Tyr Arg Cys Ile Ala	Gly Ser Ala Gln Glu		
385	390	395	400	
Thr Val Val Leu Lys Leu	Ile Gly Thr Asp Asn	Arg Leu Ile Ala Arg		
	405	410	415	
Pro Ala Leu Arg Glu Pro	Met Arg Glu Tyr Pro	Gly Met Asp His Ser		
	420	425	430	
Glu Ala Asn Ser Leu Gly	Val Thr Trp His Lys	Met Arg Gln Met Trp		
	435	440	445	
Asn Asn Lys Asn Asp Leu	Tyr Leu Asp Asp Asp	His Ile Ser Asn Gln		
	450	455	460	
Pro Phe Leu Arg Ala Leu	Leu Leu Gly His Cys	Ser Asn Ser Ala Gly Ser		
465	470	475	480	
Thr Asn Ser Trp Glu Leu	Lys Asn Lys Gln Phe	Glu Ala Ala Val Lys		

485 490 495  
 Gln Gly Ala Tyr Ser Met Asp Thr Ala Gln Phe Asp Glu Leu Ile Arg  
 500 505 510  
 Asn Met Ser Gln Leu Met Glu Thr Gly Glu Val Ser Asp Asp Leu Ala  
 515 520 525  
 Ser Gln Leu Ile Tyr Gln Leu Val Ala Glu Leu Ala Lys Ala Gln Pro  
 530 535 540  
 Thr His Met Gln Trp Arg Gly Ile Gln Glu Glu Thr Pro Pro Ala Ala  
 545 550 555 560  
 Gln Leu Arg Gly Glu Thr Gly Ser Val Ser Gln Ser Ser His Ala Lys  
 565 570 575  
 Asn Ser Gly Lys Leu Thr Phe Lys Pro Lys Gly Pro Val Leu Met Arg  
 580 585 590  
 Gln Ser Gln Pro Pro Ser Ile Ser Phe Asn Lys Thr Ile Asn Ser Arg  
 595 600 605  
 Ile Gly Asn Thr Val Tyr Ile Thr Lys Arg Thr Glu Val Ile Asn Ile  
 610 615 620  
 Leu Cys Asp Leu Ile Thr Pro Ser Glu Ala Thr Tyr Thr Trp Thr Lys  
 625 630 635 640  
 Asp Gly Thr Leu Leu Gln Pro Ser Val Lys Ile Ile Leu Asp Gly Thr  
 645 650 655  
 Gly Lys Ile Gln Ile Gln Asn Pro Thr Arg Lys Glu Gln Gly Ile Tyr  
 660 665 670  
 Glu Cys Ser Val Ala Asn His Leu Gly Ser Asp Val Glu Ser Ser Ser  
 675 680 685  
 Val Leu Tyr Ala Glu Ala Pro Val Ile Leu Ser Val Glu Arg Asn Ile  
 690 695 700  
 Thr Lys Pro Glu His Asn His Leu Ser Val Val Val Gly Gly Ile Val  
 705 710 715 720  
 Glu Ala Ala Leu Gly Ala Asn Val Thr Ile Arg Cys Pro Val Lys Gly  
 725 730 735  
 Val Pro Gln Pro Asn Ile Thr Trp Leu Lys Arg Gly Gly Ser Leu Ser  
 740 745 750  
 Gly Asn Val Ser Leu Leu Phe Asn Gly Ser Leu Leu Leu Gln Asn Val  
 755 760 765  
 Ser Leu Glu Asn Glu Gly Thr Tyr Val Cys Ile Ala Thr Asn Ala Leu  
 770 775 780  
 Gly Lys Ala Val Ala Thr Ser Val Leu His Leu Leu Glu Arg Arg Trp  
 785 790 795 800  
 Pro Glu Ser Arg Ile Val Phe Leu Gln Gly His Lys Lys Tyr Ile Leu  
 805 810 815  
 Gln Ala Thr Asn Thr Arg Thr Asn Ser Asn Asp Pro Thr Gly Glu Pro  
 820 825 830  
 Pro Pro Gln Glu Pro Phe Trp Glu Pro Gly Asn Trp Ser His Cys Ser  
 835 840 845  
 Ala Thr Cys Gly His Leu Gly Ala Arg Ile Gln Arg Pro Gln Cys Val  
 850 855 860  
 Met Ala Asn Gly Gln Glu Val Ser Glu Ala Leu Cys Asp Gln Pro Pro  
 865 870 875 880  
 Glu Ala Thr Gly Trp Val  
 885

&lt;210&gt; 529

&lt;211&gt; 4566

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 529

nggcgagcta agccggagga tgtgcagctg cggcggcggc gccggctacg aagaggacgg  
60  
ggacaggcgc cgtgcgaacc gagcccagcc agccggagga cgccggcagg gcgggacggg  
120  
agcccggact cgtctgccgc cgcgcgtcgc gccgtcgtgc cggcccccgcg tccccgcgcg  
180  
cgagcgggag gagccgcgcg cacctcgcgc ccgagccgcc gctagcgcgc gccgggcatg  
240  
gtccccctctt aaaggcgcag gccgcggcgg cggggggcggg cgtgcggaac aaagcgcgcg  
300  
cgcggggcct gcggggcggt cggggggcgc gatgggcgcg gcggggccgc ggcggcgcg  
360  
gcgctgcccg ggccgggcct cgcggcgcta gggcgggctg gcctccgcgg gcgggggcag  
420  
cgggctgagg gcgcgcgggg cctgcggcgg cggcggcggc ggcgggcgcg gcccggcggg  
480  
cggagcggcg cgggcatggc cgcgcgcggc cggcgcgcct ggctcagcgt gctgctcggg  
540  
ctcgtcctgg gcttcgtgct ggctcgcgg ctcgtcctgc cccgggcttc cgagctgaag  
600  
cgagcggggc cacggcgccg cgcagccccc gagggctgcc ggtccgggca ggcggcggct  
660  
tcccaggccg gcggggcgcg cggcgatgcg cgcggggcgc agctctggcc gcccggtcgc  
720  
gaccagatg gcggcccgcg cgacaggaac tttctcttcg tgggagtcac gaccgccag  
780  
aaatacctgc agactcgggc cgtggccgcc tacagaacat ggtccaagac aattcctggg  
840  
aaagttagt tcttctcaag tgagggttct gacacatctg taccaattcc agtagtgcca  
900  
ctacgggggtg tggacgactc ctacccgccc cagaagaagt ccttcattgat gctcaagtac  
960  
atgcacgacc actacttggc caagtatgaa tggtttatga gagcagatga tgacgtgtac  
1020  
atcaaaggag accgtctgga gaacttcctg aggagtttga acagcagcga gccctcttt  
1080  
cttgggcaga caggcctggg caccacggaa gaaatgggaa aactggccct ggagcctggg  
1140  
gagaacttct gcatgggggg gcctggcgctg atcatgagcc gggaggtgct tcggagaatg  
1200  
gtgccgcaca ttggcaagtg tctccgggag atgtacacca cccatgagga cgtggaggtg  
1260  
ggaaggtgtg tccggagggt tgcaggggtg cagtgtgtct ggtcttatga gatgcagcag  
1320  
cttttttatg agaattacga gcagaacaaa aaggggtaca ttagagatct ccataacagt  
1380  
aaaattcacc aagctatcac attacacccc aacaaaaacc caccctacca gtacaggctc  
1440  
cacagctaca tgctgagccg caagatatcc gagctccgcc atgcacaat acagctgcac  
1500



cgcgaaattg tcctgatgag caaatacagc aacacagaaa ttcataaaga ggacctccag  
1560  
ctgggaatcc ctccctcctt catgagggtt cagccccgcc agcgagagga gattctggaa  
1620  
tgggagtttc tgactggaaa atacttgtat tcggcagttg acggccagcc ccctcgaaga  
1680  
ggaatggact ccgcccagag ggaagccttg gacgacattg tcatgcaggt catggagatg  
1740  
atcaatgcc aacccaagac cagagggcgc atcattgact tcaaagagat ccagtacggc  
1800  
taccgcccgg tgaaccccat gtatggggct gactacatcc tggacctgct gcttctgtac  
1860  
aaaaagcaca aaggggaagaa aatgacggtc cctgtgagga ggcacgcgta tttacagcag  
1920  
actttcagca aaatccagtt tgtggagcat gaggagctgg atgcacaaga gttggccaag  
1980  
agaatcaatc aggaatctgg atccttgtcc tttctctcaa actccctgaa gaagctcgtc  
2040  
ccctttcagc tccctgggtc gaagagttag cacaagaac ccaaagataa aaagataaac  
2100  
atactgattc ctttgtctgg gcgtttcgac atgtttgtga gatttatggg aaactttgag  
2160  
aagacgtgtc ttatcccaa tcagaacgtc aagctcgtag ttctgctttt caattctgac  
2220  
tccaacctg acaaggccaa acaagttgaa ctgatgacag attaccgcat taagtacct  
2280  
aaagccgaca tgcagatttt gcctgtgtct ggagagtttt caagagccct ggccctggaa  
2340  
gtaggatcct ccagtttaa caatgaatct ttgctcttct tctgagacgt cgacctcgtag  
2400  
tttactacag aattccttca gcgatgtcga gcaaatacag ttctgggcca acaaatatat  
2460  
tttccaatca tcttcagcca gtatgaccca aagattgttt atagtgggaa agttccagtc  
2520  
gacaaccatt ttgcctttac tcagaaaact ggcttctgga gaaactatgg gtttggcatc  
2580  
acgtgtattt ataagggaga tcttgtccga gtgggtggct ttgatgtttc catccaaggc  
2640  
tgggggctgg aggatgtgga ctttttcaac aaggttgtcc aggcaggttt gaagacgttt  
2700  
aggagccagg aagtaggagt agtcacgct caccatcctg tcttttgtga tcccaatctt  
2760  
gaccccaaac agtacaaaat gtgcttgggg tocaaagcat cgacctatgg gtccacacag  
2820  
cagctggctg agatgtggct ggaaaaaat gatccaagtt acagtaaaag cagcaataat  
2880  
aatggctcag tgaggacagc ctaatgtcca gctttgctgg aaaagacgtt ttttaattatc  
2940  
taatttattt ttcaaaaatt ttttgtatga tcagtttttg aagtcctgat acaaggatat  
3000  
attttacaag tggttttctt acataggact cttttaagat tgagctttct gaacaagaag  
3060  
gtgatcagtg tttgcctttg aacacatctt cttgtgtaac attatgtagc agacctgctt  
3120

aactttgact tgaaatgtac ctgatgaaca aaactttttt aaaaaaatgt tttcttttga  
3180  
gaccctttgc tccagtccta tggcagaaaa cgtgaacatt cctgcaaagt attattgtaa  
3240  
caaaacactg taactctggt aaatgttctg ttgtgattgt taacattcca cagattctac  
3300  
cttttgtggt ttgttttttt ttttttacia ttgttttaaa gccatttcat gttccagtgt  
3360  
taagataagg aaatgtgata atagctgttt catcattgtc ttcaggagag ctttccagag  
3420  
ttgatcattt cccctcatgg tactctgtc agcatggcca cgtaggtttt ttgtttgttt  
3480  
tgttttgttc tttttttgag acggagtctc actctgttac ccaggctgga atgcagtggc  
3540  
gcaatcttgg ctcaacttaa cctccacttc cctggttcaa gcaattcccc tgcctttgcc  
3600  
tcccagtag ctgggattac aggcacacac caccagccc agctagtttt tttgtatttt  
3660  
tagtagagac ggggtttcac catgcaagcc cagctggcca cgtaggtttt aaagcaaggg  
3720  
gcgtagaaga ggcacagtga ggtatgtggc tgttctcgtg gtagttcatt cggcctaaat  
3780  
agacctggca ttaaatttca agaaggattt ggcatcttct cttcttgacc cttctcttta  
3840  
aagggtaaaa tattaatgtt tagaatgaca aagatgaatt attacaataa atctgatgta  
3900  
cacagactga aacacacaca catacaccct aatcaaaacg ttggggaaaa atgtatttgg  
3960  
ttttgttctt ttcactctgt ctgtgttatg tgggtggaga tggttttcat tctttcatta  
4020  
ctgttttgtt ttatcctttg tatctgaaat accttaatt tatttaatat ctgttgttca  
4080  
gagctctgcc atttcttgag tacctgttag ttagtattat ttatgtgtat cgggagtgtg  
4140  
tttagtctgt tttatttgca gtaaaccgat ctccaaagat ttccttttgg aaacgctttt  
4200  
tcccctcctt aatttttata ttccttactg ttttactaaa tattaagtgt tctttgacaa  
4260  
ttttggtgct catgtgtttt ggggacaaaa gtgaaatgaa tctgtcatta taccagaaa  
4320  
ttaaattctc agatcaaagt tgccttaata aatttgtttt catttagatt tcaaacagt  
4380  
atagacttgc cattttaata cacgtcattg gagggctgcg tatttgtaaa tagcctgatg  
4440  
ctcatttggg aaaataaacc agtgaacaat atttttctat tgtacttttc gaaccatttt  
4500  
gtctcattat tctgttttta gctgaagaat tgtattacat ttggagagta aaaaacttaa  
4560  
acacga  
4566

&lt;210&gt; 530

&lt;211&gt; 802

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 530

Met Ala Ala Arg Gly Arg Arg Ala Trp Leu Ser Val Leu Leu Gly Leu  
 1 5 10 15  
 Val Leu Gly Phe Val Leu Ala Ser Arg Leu Val Leu Pro Arg Ala Ser  
 20 25 30  
 Glu Leu Lys Arg Ala Gly Pro Arg Arg Arg Ala Ser Pro Glu Gly Cys  
 35 40 45  
 Arg Ser Gly Gln Ala Ala Ala Ser Gln Ala Gly Gly Ala Arg Gly Asp  
 50 55 60  
 Ala Arg Gly Ala Gln Leu Trp Pro Pro Gly Ser Asp Pro Asp Gly Gly  
 65 70 75 80  
 Pro Arg Asp Arg Asn Phe Leu Phe Val Gly Val Met Thr Ala Gln Lys  
 85 90 95  
 Tyr Leu Gln Thr Arg Ala Val Ala Ala Tyr Arg Thr Trp Ser Lys Thr  
 100 105 110  
 Ile Pro Gly Lys Val Gln Phe Phe Ser Ser Glu Gly Ser Asp Thr Ser  
 115 120 125  
 Val Pro Ile Pro Val Val Pro Leu Arg Gly Val Asp Asp Ser Tyr Pro  
 130 135 140  
 Pro Gln Lys Lys Ser Phe Met Met Leu Lys Tyr Met His Asp His Tyr  
 145 150 155 160  
 Leu Asp Lys Tyr Glu Trp Phe Met Arg Ala Asp Asp Asp Val Tyr Ile  
 165 170 175  
 Lys Gly Asp Arg Leu Glu Asn Phe Leu Arg Ser Leu Asn Ser Ser Glu  
 180 185 190  
 Pro Leu Phe Leu Gly Gln Thr Gly Leu Gly Thr Thr Glu Glu Met Gly  
 195 200 205  
 Lys Leu Ala Leu Glu Pro Gly Glu Asn Phe Cys Met Gly Gly Pro Gly  
 210 215 220  
 Val Ile Met Ser Arg Glu Val Leu Arg Arg Met Val Pro His Ile Gly  
 225 230 235 240  
 Lys Cys Leu Arg Glu Met Tyr Thr Thr His Glu Asp Val Glu Val Gly  
 245 250 255  
 Arg Cys Val Arg Arg Phe Ala Gly Val Gln Cys Val Trp Ser Tyr Glu  
 260 265 270  
 Met Gln Gln Leu Phe Tyr Glu Asn Tyr Glu Gln Asn Lys Lys Gly Tyr  
 275 280 285  
 Ile Arg Asp Leu His Asn Ser Lys Ile His Gln Ala Ile Thr Leu His  
 290 295 300  
 Pro Asn Lys Asn Pro Pro Tyr Gln Tyr Arg Leu His Ser Tyr Met Leu  
 305 310 315 320  
 Ser Arg Lys Ile Ser Glu Leu Arg His Arg Thr Ile Gln Leu His Arg  
 325 330 335  
 Glu Ile Val Leu Met Ser Lys Tyr Ser Asn Thr Glu Ile His Lys Glu  
 340 345 350  
 Asp Leu Gln Leu Gly Ile Pro Pro Ser Phe Met Arg Phe Gln Pro Arg  
 355 360 365  
 Gln Arg Glu Glu Ile Leu Glu Trp Glu Phe Leu Thr Gly Lys Tyr Leu  
 370 375 380  
 Tyr Ser Ala Val Asp Gly Gln Pro Pro Arg Arg Gly Met Asp Ser Ala  
 385 390 395 400  
 Gln Arg Glu Ala Leu Asp Asp Ile Val Met Gln Val Met Glu Met Ile

405 410 415  
 Asn Ala Asn Ala Lys Thr Arg Gly Arg Ile Ile Asp Phe Lys Glu Ile  
 420 425 430  
 Gln Tyr Gly Tyr Arg Arg Val Asn Pro Met Tyr Gly Ala Glu Tyr Ile  
 435 440 445  
 Leu Asp Leu Leu Leu Leu Tyr Lys Lys His Lys Gly Lys Lys Met Thr  
 450 455 460  
 Val Pro Val Arg Arg His Ala Tyr Leu Gln Gln Thr Phe Ser Lys Ile  
 465 470 475 480  
 Gln Phe Val Glu His Glu Glu Leu Asp Ala Gln Glu Leu Ala Lys Arg  
 485 490 495  
 Ile Asn Gln Glu Ser Gly Ser Leu Ser Phe Leu Ser Asn Ser Leu Lys  
 500 505 510  
 Lys Leu Val Pro Phe Gln Leu Pro Gly Ser Lys Ser Glu His Lys Glu  
 515 520 525  
 Pro Lys Asp Lys Lys Ile Asn Ile Leu Ile Pro Leu Ser Gly Arg Phe  
 530 535 540  
 Asp Met Phe Val Arg Phe Met Gly Asn Phe Glu Lys Thr Cys Leu Ile  
 545 550 555 560  
 Pro Asn Gln Asn Val Lys Leu Val Val Leu Leu Phe Asn Ser Asp Ser  
 565 570 575  
 Asn Pro Asp Lys Ala Lys Gln Val Glu Leu Met Thr Asp Tyr Arg Ile  
 580 585 590  
 Lys Tyr Pro Lys Ala Asp Met Gln Ile Leu Pro Val Ser Gly Glu Phe  
 595 600 605  
 Ser Arg Ala Leu Ala Leu Glu Val Gly Ser Ser Gln Phe Asn Asn Glu  
 610 615 620  
 Ser Leu Leu Phe Phe Cys Asp Val Asp Leu Val Phe Thr Thr Glu Phe  
 625 630 635 640  
 Leu Gln Arg Cys Arg Ala Asn Thr Val Leu Gly Gln Gln Ile Tyr Phe  
 645 650 655  
 Pro Ile Ile Phe Ser Gln Tyr Asp Pro Lys Ile Val Tyr Ser Gly Lys  
 660 665 670  
 Val Pro Ser Asp Asn His Phe Ala Phe Thr Gln Lys Thr Gly Phe Trp  
 675 680 685  
 Arg Asn Tyr Gly Phe Gly Ile Thr Cys Ile Tyr Lys Gly Asp Leu Val  
 690 695 700  
 Arg Val Gly Gly Phe Asp Val Ser Ile Gln Gly Trp Gly Leu Glu Asp  
 705 710 715 720  
 Val Asp Leu Phe Asn Lys Val Val Gln Ala Gly Leu Lys Thr Phe Arg  
 725 730 735  
 Ser Gln Glu Val Gly Val Val His Val His His Pro Val Phe Cys Asp  
 740 745 750  
 Pro Asn Leu Asp Pro Lys Gln Tyr Lys Met Cys Leu Gly Ser Lys Ala  
 755 760 765  
 Ser Thr Tyr Gly Ser Thr Gln Gln Leu Ala Glu Met Trp Leu Glu Lys  
 770 775 780  
 Asn Asp Pro Ser Tyr Ser Lys Ser Ser Asn Asn Gly Ser Val Arg  
 785 790 795 800  
 Thr Ala

&lt;210&gt; 531

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

ngatgatgaa tcccccgca gcctcgtaa tatggggggc ttctacccc agcaaaaggc  
 60  
 acggcaatac gtctcgaaca aaggctcttt gtttcgaaat aacaaggggt tagagctaag  
 120  
 aggaagaagc gtgaaacgct gtaggaccag cgtttcgaac gcccccgagg tgaaccctcg  
 180  
 ggggcgtctg aatcaggcca gttgggcctg ggacgacagc ggttcagcgc gcagcaatgg  
 240  
 cgcgtgcgga tcagccttga tcgattcacg ccaggcgccg agccactcgg cgtggccttc  
 300  
 gttccacacc tgctggtgca g  
 321

&lt;210&gt; 532

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

Met	Gly	Gly	Phe	Leu	Pro	Gln	Gln	Lys	Ala	Arg	Gln	Tyr	Val	Ser	Asn
1				5				10					15		
Lys	Gly	Leu	Leu	Phe	Arg	Asn	Asn	Lys	Gly	Leu	Glu	Leu	Arg	Gly	Arg
		20					25				30				
Ser	Val	Lys	Arg	Cys	Arg	Thr	Ser	Val	Ser	Asn	Ala	Pro	Glu	Val	Asn
		35				40					45				
Pro	Arg	Gly	Arg	Leu	Asn	Gln	Ala	Ser	Trp	Ala	Trp	Asp	Asp	Ser	Gly
		50				55				60					
Cys	Ser	Gly	Ser	Asn	Gly	Ala	Cys	Gly	Ser	Ala	Leu	Ile	Asp	Ser	Arg
65				70					75				80		
Gln	Ala	Pro	Ser	His	Ser	Ala	Trp	Pro	Ser	Phe	His	Thr	Cys	Trp	Cys
				85				90					95		

&lt;210&gt; 533

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 533

nagtttccgg tgaaccgctc cgcaatgcct cgtgacatcg acttcagcga agccaacagg  
 60  
 agcatcatcg acaacatggc aactgcctca atcccgttt tccgaaccca caaaaactgg  
 120  
 gagacgtggt cgagtcaggt ccggcatttc attagccttt tacacccaaa agtcaccctc  
 180  
 accaacattg acaacgtcct caacaaagat cacctgcgtt ggctacactt tcttttggag  
 240  
 ggtcgcctgg agccaaacgt gcgcctgatt gtccagggt actgttcgcc tggcaagctg  
 300  
 taccgcaagc ttgaggagct atatgccctt tctgc  
 335

<210> 534  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 534  
 Met Pro Arg Asp Ile Asp Phe Ser Glu Ala Asn Arg Ser Ile Ile Asp  
 1 5 10 15  
 Asn Met Ala Thr Ala Ser Ile Pro Leu Phe Arg Thr His Lys Asn Trp  
 20 25 30  
 Glu Thr Trp Ser Ser Gln Val Arg His Phe Ile Ser Leu Leu His Pro  
 35 40 45  
 Lys Val Thr Leu Thr Asn Ile Asp Asn Val Leu Asn Lys Asp His Leu  
 50 55 60  
 Arg Trp Leu His Phe Leu Leu Glu Gly Arg Leu Glu Pro Asn Val Arg  
 65 70 75 80  
 Leu Ile Val Gln Gly Tyr Cys Ser Pro Gly Lys Leu Tyr Arg Lys Leu  
 85 90 95  
 Glu Glu Leu Tyr Ala Pro Ser  
 100

<210> 535  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 535  
 acgcgtctct acagccggac taagcacagg ctacgccccg gtcgccatgc gcccaggctc  
 60  
 ggttatcagc cgaggaatcc acggcgaaat gaccagtagc ggccctaata caactatgct  
 120  
 gccgagcagc agacgtcgag gtcgggtcat gaggatgccg acggccaccg cgaccgggta  
 180  
 taccacaaat gcaggaacaa ggctgatagc tagggctgac cacagagcca ggccgcctgc  
 240  
 cgaggaaacg cccccacct ggtgactgcc agtatcagca ccgcgcagct caacgacgtc  
 300  
 aacagtctcg ggattgacca accgccacgt atgcagggcc atgtggggga gaatcaccac  
 360  
 caacgccaat gctgtcacccg agcctcgggc taggcgcgcg gc  
 402

<210> 536  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 536  
 Met Ala Leu His Thr Trp Arg Leu Val Asn Pro Glu Thr Val Asp Val  
 1 5 10 15  
 Val Glu Leu Arg Gly Ala Asp Thr Gly Ser His Gln Val Gly Gly Val  
 20 25 30  
 Ser Ser Ala Gly Gly Leu Ala Leu Trp Ser Ala Leu Ala Ile Ser Leu

35                                      40                                      45  
 Val Pro Ala Leu Trp Val Tyr Pro Val Ala Val Ala Val Gly Ile Leu  
 50                                      55                                      60  
 Met Thr Arg Pro Arg Arg Leu Leu Gly Ser Ile Val Val Leu Gly  
 65                                      70                                      75                                      80  
 Pro Leu Leu Val Ile Ser Pro Trp Ile Pro Arg Leu Ile Thr Glu Pro  
 85                                      90                                      95  
 Gly Arg Met Ala Thr Gly Ala Glu Pro Val Leu Ser Pro Ala Val Glu  
 100                                      105                                      110  
 Thr Arg

<210> 537  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 537  
 gtgcacatcg gcggcaccga cttcgacaaa caactctcgc tggttgcat gatgccgctg  
 60  
 ttgggtacg gcagccgcat gaagagcggc gcctacatgc ccaccagcca ccacatgaac  
 120  
 ctggcgacct ggcacacccat caactcgggtg tactcgcaaa aatcccagct ggccctgggc  
 180  
 agcatgcgct acgacatcga agacaccggc ggcacgcacc gcctgttcaa gctgatcgaa  
 240  
 cagcgtgctg ggcactggct tgccatggaa gtggaagaaa ccaagatcca gctcacccat  
 300  
 caagacagcc gccacgtgcc gctggaccgc atcgaagcgg gcctgagcgt agacctgagc  
 360  
 cgggcgctgt tcgaatcgtc catcgacaac ctgctcgaac gcgt  
 404

<210> 538  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 538  
 Met Met Pro Leu Phe Gly Tyr Gly Ser Arg Met Lys Ser Gly Ala Tyr  
 1                                      5                                      10                                      15  
 Met Pro Thr Ser His His Met Asn Leu Ala Thr Trp His Thr Ile Asn  
 20                                      25                                      30  
 Ser Val Tyr Ser Gln Lys Ser Gln Leu Ala Leu Gly Ser Met Arg Tyr  
 35                                      40                                      45  
 Asp Ile Glu Asp Thr Gly Gly Ile Asp Arg Leu Phe Lys Leu Ile Glu  
 50                                      55                                      60  
 Gln Arg Ala Gly His Trp Leu Ala Met Glu Val Glu Glu Thr Lys Ile  
 65                                      70                                      75                                      80  
 Gln Leu Thr His Gln Asp Ser Arg His Val Pro Leu Asp Arg Ile Glu  
 85                                      90                                      95  
 Ala Gly Leu Ser Val Asp Leu Ser Arg Ala Leu Phe Glu Ser Ser Ile  
 100                                      105                                      110  
 Asp Asn Leu Leu Glu Arg

115

&lt;210&gt; 539

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 539

nnacgcgtga aaaagaagaa aatgaaggaa agcgaggctg acagcgaggt gaagcatcaa  
 60  
 ccaattttca taaaagaaag attgaagctt tttgaaatac tgaagaaaga ccatcagctc  
 120  
 ttacttgcca tttatggaaa aaagggggat acaagcaaca tcatcacagt aagagtggct  
 180  
 gatggggcaaa cagtgcagg ggaagtctgg aaaacaacgc cttaccaagt ggctgctgaa  
 240  
 attagtcagg aactggctga aagcacggta atagccaaag tcaatgggtga actgtgggac  
 300  
 ctggaccgcc cattggaagg ggactcttct ctagagctgc ttacatttga taatgaggaa  
 360  
 gctcaagctg tgagtatttt aaaaccagac agccaaactt tgggtagtta tgttgtaaac  
 420  
 tacattatat aagaggccac atattgaatt cacgaatgtt gagttttttg ggggtttcta  
 480  
 agatttaaaa tttgattatt gatgtttaat aaatatttgc ctcatgaatg ttaa  
 534

&lt;210&gt; 540

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 540

Xaa	Arg	Val	Lys	Lys	Lys	Lys	Met	Lys	Glu	Ser	Glu	Ala	Asp	Ser	Glu
1				5					10					15	
Val	Lys	His	Gln	Pro	Ile	Phe	Ile	Lys	Glu	Arg	Leu	Lys	Leu	Phe	Glu
			20					25					30		
Ile	Leu	Lys	Lys	Asp	His	Gln	Leu	Leu	Leu	Ala	Ile	Tyr	Gly	Lys	Lys
		35					40					45			
Gly	Asp	Thr	Ser	Asn	Ile	Ile	Thr	Val	Arg	Val	Ala	Asp	Gly	Gln	Thr
	50					55					60				
Val	Gln	Gly	Glu	Val	Trp	Lys	Thr	Thr	Pro	Tyr	Gln	Val	Ala	Ala	Glu
65					70					75				80	
Ile	Ser	Gln	Glu	Leu	Ala	Glu	Ser	Thr	Val	Ile	Ala	Lys	Val	Asn	Gly
				85					90					95	
Glu	Leu	Trp	Asp	Leu	Asp	Arg	Pro	Leu	Glu	Gly	Asp	Ser	Ser	Leu	Glu
			100					105					110		
Leu	Leu	Thr	Phe	Asp	Asn	Glu	Glu	Ala	Gln	Ala	Val	Ser	Ile	Leu	Lys
		115					120					125			
Pro	Asp	Ser	Gln	Thr	Leu	Gly	Ser	Tyr	Val	Val	Asn	Tyr	Ile	Ile	
	130					135						140			

&lt;210&gt; 541

&lt;211&gt; 551



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 541

```

ggtagcagc tgcgcgtgtg gtatgcggcc ttctatgcca agaagatgga caagcccatg
60
ctgaagcagg ccggctctgg cgtccacgct gcaggcacc cagaaaacag cgccccctg
120
gagtcggagc ccagccagtg ggcgtgtaaa gtgtgttctg ccaccttctt ggagctgcag
180
ctcctcaatg gtaaggagga cgtgtgggga gcccagttg taaaactcct gtgtcgattt
240
ctctctgact tacgtgtgca cctgtctgcg gctgtcgggg gtgtccaga ctttgtctg
300
tctgccccat tgccccacaa tgtagtcgcc agaaccaagg ctttctcagg gtttaaagct
360
tctgggcagt cccgcttccc acccccgacc cctgcaggcc tcaactctca ctctctctg
420
ttgggaagtt gcatttcagc tgggcgcctt gactctggag cactggcagg ggccagggg
480
caggagccag ccgtggcatg tgttgtgcac tcttgccctt gttgtctcta cttgacagcc
540
ccctcacgcg t
551

```

&lt;210&gt; 542

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 542

```

Met Asp Lys Pro Met Leu Lys Gln Ala Gly Ser Gly Val His Ala Ala
1      5      10      15
Gly Thr Pro Glu Asn Ser Ala Pro Val Glu Ser Glu Pro Ser Gln Trp
20     25     30
Ala Cys Lys Val Cys Ser Ala Thr Phe Leu Glu Leu Gln Leu Leu Asn
35     40     45
Gly Lys Glu Asp Val Trp Gly Ala Pro Val Val Lys Leu Leu Cys Arg
50     55     60
Phe Leu Ser Asp Leu Arg Cys His Leu Ser Ala Ala Val Gly Gly Val
65     70     75     80
Pro Asp Phe Val Leu Ser Ala Pro Leu Pro His Asn Val Val Ala Arg
85     90     95
Thr Lys Ala Phe Ser Gly Phe Lys Ala Ser Gly Gln Ser Arg Phe Pro
100    105    110
Pro Pro Thr Pro Ala Gly Leu Thr Pro His Ser Ser Trp Leu Gly Ser
115    120    125
Cys Ile Ser Ala Gly Arg Leu Asp Ser Gly Ala Leu Ala Gly Ala Arg
130    135    140
Gly Gln Glu Pro Ala Val Ala Cys Val Val His Ser Cys Leu Cys Cys
145    150    155    160
Leu Tyr Leu Thr Ala Pro Ser Arg
165

```

<210> 543  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 543  
 nnaagccgg acatgaatac ccgcattgct ggcaaaactg tctgaccat cattctggcc  
 60  
 gggggcacaag gcagccgcct ggccccgatg accgatcagg tggccaaacc agccgtgccg  
 120  
 tttatgggga cgtaccgcct gattgacttt tcgctgtcca acattgtcca cagcggcttg  
 180  
 caggacgtct ggatcattga gcaaaacctg ccccatagct taaacgagca cctggctggg  
 240  
 gggcgctcct gggatctgga ccgcaccgcg ggtggcctga aggtcatgcc gcccttttcc  
 300  
 ggccctgccg atgaggacgg tggcttttcc gaaggcaacg cacacgcgt  
 349

<210> 544  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 544  
 Xaa Lys Pro Asp Met Asn Thr Arg Ile Ala Gly Lys Thr Val Leu Thr  
 1 5 10 15  
 Ile Ile Leu Ala Gly Gly Lys Gly Ser Arg Leu Ala Pro Met Thr Asp  
 20 25 30  
 Gln Val Ala Lys Pro Ala Val Pro Phe Met Gly Thr Tyr Arg Leu Ile  
 35 40 45  
 Asp Phe Ser Leu Ser Asn Ile Val His Ser Gly Leu Gln Asp Val Trp  
 50 55 60  
 Ile Ile Glu Gln Asn Leu Pro His Ser Leu Asn Glu His Leu Ala Gly  
 65 70 75 80  
 Gly Arg Ser Trp Asp Leu Asp Arg Thr Arg Gly Gly Leu Lys Val Met  
 85 90 95  
 Pro Pro Phe Ser Gly Pro Ala Asp Glu Asp Gly Gly Phe Ser Glu Gly  
 100 105 110  
 Asn Ala His Ala  
 115

<210> 545  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 545  
 catgatgcaa aaacagacat gcttatttca aaatataaaa gtgaaaaaga tcgttttagca  
 60  
 caagaaattg ttggtgtcat cacaggttct gcaatgccgg gtggttcagc aaaccgtatc  
 120  
 ccaataaag caggctcaaa tccagaagggt tctattgcaa cgcgttttat tgcagaaaca  
 180

atgtataacg aactcaaaac agtggattta actattcaaa atgctggcgg tgtacgcgca  
 240  
 gatattttac cggggaatgt aacctttaac gatgcttata ctttcttacc ttctgggaat  
 300  
 acgttatata cctataaaat ggaaagtcca ttagtgaaac aagtgcctga agatgcaatg  
 360  
 ctatttgctt tgggtcccc ccccccccc  
 390

<210> 546

<211> 130

<212> PRT

<213> Homo sapiens

<400> 546

His	Asp	Ala	Lys	Thr	Asp	Met	Leu	Ile	Ser	Lys	Tyr	Lys	Ser	Glu	Lys
1			5						10					15	
Asp	Arg	Leu	Ala	Gln	Glu	Ile	Val	Gly	Val	Ile	Thr	Gly	Ser	Ala	Met
		20					25					30			
Pro	Gly	Gly	Ser	Ala	Asn	Arg	Ile	Pro	Asn	Lys	Ala	Gly	Ser	Asn	Pro
		35					40					45			
Glu	Gly	Ser	Ile	Ala	Thr	Arg	Phe	Ile	Ala	Glu	Thr	Met	Tyr	Asn	Glu
	50					55				60					
Leu	Lys	Thr	Val	Asp	Leu	Thr	Ile	Gln	Asn	Ala	Gly	Gly	Val	Arg	Ala
65					70				75					80	
Asp	Ile	Leu	Pro	Gly	Asn	Val	Thr	Phe	Asn	Asp	Ala	Tyr	Thr	Phe	Leu
			85						90					95	
Pro	Phe	Gly	Asn	Thr	Leu	Tyr	Thr	Tyr	Lys	Met	Glu	Ser	Ser	Leu	Val
		100					105						110		
Lys	Gln	Val	Leu	Glu	Asp	Ala	Met	Leu	Phe	Ala	Leu	Gly	Pro	Pro	Pro
		115					120					125			
Pro	Pro														
															130

<210> 547

<211> 306

<212> DNA

<213> Homo sapiens

<400> 547

aagcttggtt ttctgatttt tattcaaata tctatcatgg atgaagcatg cagtttcaga  
 60  
 atcagttcag tgttgacaac atatcaagat attctgcagt caatctcaat gtatgttcat  
 120  
 gaagctcca acatatatttg tgggatacca tctttgtcag gcattgtgct aggcactgtc  
 180  
 cctgcagtga ataagaaaga caggatttct gtatttatgg ggcttagtac caagttgttc  
 240  
 tcaaactttc atgtttgtgt atacaaatca gctgaggcct tcaactaaact cnnnnnccnn  
 300  
 nnnccnn  
 306

<210> 548

<211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 548  
 Met Asp Glu Ala Cys Ser Phe Arg Ile Ser Ser Val Leu Thr Thr Tyr  
 1 5 10 15  
 Gln Asp Ile Leu Gln Ser Ile Ser Met Tyr Val His Glu Ala Ser Asn  
 20 25 30  
 Ile Phe Cys Gly Ile Pro Ser Leu Ser Gly Ile Val Leu Gly Thr Val  
 35 40 45  
 Pro Ala Val Asn Lys Lys Asp Arg Ile Ser Val Phe Met Gly Leu Ser  
 50 55 60  
 Thr Lys Leu Phe Ser Asn Phe His Val Cys Val Tyr Lys Ser Ala Glu  
 65 70 75 80  
 Ala Phe Thr Lys Leu Xaa Xaa Xaa Xaa Xaa  
 85 90

<210> 549  
 <211> 780  
 <212> DNA  
 <213> Homo sapiens

<400> 549  
 nnacgcgtac ttccaacacc tatgctccag tatggaggac gggtaaagtc tcttgtaa  
 60  
 gttttaatca tacacatatt gtctgtaagt atgaagagaa aggcataatca gaaatatttc  
 120  
 aattcagcga ttgaaatgt ttactttctg tttattgaaa atttttgttc tttttcacca  
 180  
 tgttattttt ttctctcgt gtagaatcgg acagtagcaa caccgagcca tggagtatgg  
 240  
 gacatgcgag ggaaacaatt ccacacagga gttgaaatca aaatgtgggc tatcgcttgt  
 300  
 tttgccacac agaggcagtg cagagaagaa atattgaagg gtttcacaga ccagctgcgt  
 360  
 aagatttcta aggatgcagg gatgcccac cagggccagc catgcttctg caaatatgca  
 420  
 cagggggcag acagcgtaga gcccatgttc cgcatctca agaacacata ttctggccta  
 480  
 cagcttatta tcgtcatcct gccggggaag acaccagtgt atgcggaagt gaaacgtgta  
 540  
 ggagacacac ttttggtat ggctacacaa tgtgttcaag tcaagaatgt aataaaaaa  
 600  
 tctctcaaa ctctgtcaaa ctgtgccta aagataaatg ttaaactcgg agggatcaat  
 660  
 aatattcttg tacctcatca aagaccttct gtgttcagc aaccagtgat ctttttggga  
 720  
 gccgatgtca ctcaccacc tgctggtgat ggaaagaagc cttctattgc tgctgttgta  
 780

<210> 550  
 <211> 192  
 <212> PRT

<213> Homo sapiens

<400> 550

```

Asn Arg Thr Val Ala Thr Pro Ser His Gly Val Trp Asp Met Arg Gly
 1           5           10           15
Lys Gln Phe His Thr Gly Val Glu Ile Lys Met Trp Ala Ile Ala Cys
          20           25           30
Phe Ala Thr Gln Arg Gln Cys Arg Glu Glu Ile Leu Lys Gly Phe Thr
          35           40           45
Asp Gln Leu Arg Lys Ile Ser Lys Asp Ala Gly Met Pro Ile Gln Gly
          50           55           60
Gln Pro Cys Phe Cys Lys Tyr Ala Gln Gly Ala Asp Ser Val Glu Pro
          65           70           75           80
Met Phe Arg His Leu Lys Asn Thr Tyr Ser Gly Leu Gln Leu Ile Ile
          85           90           95
Val Ile Leu Pro Gly Lys Thr Pro Val Tyr Ala Glu Val Lys Arg Val
          100          105          110
Gly Asp Thr Leu Leu Gly Met Ala Thr Gln Cys Val Gln Val Lys Asn
          115          120          125
Val Ile Lys Thr Ser Pro Gln Thr Leu Ser Asn Leu Cys Leu Lys Ile
          130          135          140
Asn Val Lys Leu Gly Gly Ile Asn Asn Ile Leu Val Pro His Gln Arg
          145          150          155          160
Pro Ser Val Phe Gln Gln Pro Val Ile Phe Leu Gly Ala Asp Val Thr
          165          170          175
His Pro Pro Ala Gly Asp Gly Lys Lys Pro Ser Ile Ala Ala Val Val
          180          185          190

```

<210> 551

<211> 291

<212> DNA

<213> Homo sapiens

<400> 551

```

nnggatccgg attatggggc tattgctaac aggtcaacgg ccatcaaggt gtcggttgcc
60
gtggcaccgc cagccccgga gctactcgc gagccaccga cgaactccgc tccttccgag
120
gaaccgtcct cgtcgtcaat cgcaccggtc ccgccggccc cgacgactgc agtaccacag
180
actagttcgt cgtcggggccg ctgaccgatg cgcccatcgg cggggtcattc tgggtggcgc
240
tagcgggggc ttgatgtcc ccataccaca gcgtccgcta aattgccnc c
291

```

<210> 552

<211> 67

<212> PRT

<213> Homo sapiens

<400> 552

```

Xaa Asp Pro Asp Tyr Gly Ala Ile Ala Asn Arg Ser Thr Ala Ile Lys
 1           5           10           15
Val Leu Val Ala Val Ala Pro Pro Ala Pro Glu Pro Thr Arg Glu Pro

```

```

      20      25      30
Pro Thr Asn Ser Ala Pro Ser Glu Glu Pro Ser Ser Ser Ile Ala
      35      40      45
Pro Val Pro Pro Ala Pro Thr Thr Ala Val Pro Thr Thr Ser Ser Ser
      50      55      60
Ser Gly Arg
65

```

<210> 553  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

```

<400> 553
ctagccgatg taggattagt aggttttccg agcgtgggta aatctacctt actctcaata
60
gtatctaaag ccaaaccgaa aattggtgca tatcatttca ctacaattaa acctaactta
120
ggtgttgttt ccacaaaaga tcaacgtagt tttgttatgg cagatttacc aggtttaatt
180
gaaggtgcat ctgatggcgt tggattagga catcaatttt taagacatgt agagagaaca
240
aaagttattg ttcacatgat tgatatgagc ggttctgaag gtagagaacc tattgaagat
300
tataaagtca ttaatcaaga attagctgcg tacgagcaac gtttagaaga tagacctcaa
360
atcgtagtag ctaacaagat ggattttacct gaatcacaag ataatttaaa cttgtttaaa
420
gaagaaattg gcgaagatgt gccagttatt ccagtttcaa caataacgcg t
471

```

<210> 554  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 554
Leu Ala Asp Val Gly Leu Val Gly Phe Pro Ser Val Gly Lys Ser Thr
1      5      10      15
Leu Leu Ser Ile Val Ser Lys Ala Lys Pro Lys Ile Gly Ala Tyr His
20      25      30
Phe Thr Thr Ile Lys Pro Asn Leu Gly Val Val Ser Thr Lys Asp Gln
35      40      45
Arg Ser Phe Val Met Ala Asp Leu Pro Gly Leu Ile Glu Gly Ala Ser
50      55      60
Asp Gly Val Gly Leu Gly His Gln Phe Leu Arg His Val Glu Arg Thr
65      70      75      80
Lys Val Ile Val His Met Ile Asp Met Ser Gly Ser Glu Gly Arg Glu
85      90      95
Pro Ile Glu Asp Tyr Lys Val Ile Asn Gln Glu Leu Ala Ala Tyr Glu
100      105      110
Gln Arg Leu Glu Asp Arg Pro Gln Ile Val Val Ala Asn Lys Met Asp
115      120      125
Leu Pro Glu Ser Gln Asp Asn Leu Asn Leu Phe Lys Glu Glu Ile Gly

```

130 135 140  
 Glu Asp Val Pro Val Ile Pro Val Ser Thr Ile Thr Arg  
 145 150 155

<210> 555  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 555  
 tctagagatt gagaacaatt atggatacag aaatgggtga ttccgtcaaa tatattcgag  
 60  
 attcgggaatc atgtgaggct cgcgtgctgg agatcttagc cagaaggccg tccatgatgg  
 120  
 tgcagatctt gcgtggcgac ggcttaatta acgaagacca gagattagtc agattatggc  
 180  
 ttaataaagt acctagaatt gttcgcctgc ttctccggt tagtggttgc gtcgctgcgg  
 240  
 caataggtgc ccgtgcggtg tggggcgccg cttccggtaa tcccgatctt gttcacgcgt  
 300

<210> 556  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 556  
 Met Asp Thr Glu Met Val Asp Ser Val Lys Tyr Ile Arg Asp Ser Glu  
 1 5 10 15  
 Ser Cys Glu Ala Arg Val Leu Glu Ile Leu Ala Arg Arg Pro Ser Met  
 20 25 30  
 Met Val Gln Ile Leu Arg Gly Asp Gly Leu Ile Asn Glu Asp Gln Arg  
 35 40 45  
 Leu Val Arg Leu Trp Leu Asn Lys Val Pro Arg Ile Val Arg Leu Leu  
 50 55 60  
 Leu Arg Leu Ser Val Phe Val Ala Ala Ala Ile Gly Ala Arg Ala Val  
 65 70 75 80  
 Trp Ala Ala Ala Ser Gly Asn Pro Asp Leu Val His Ala  
 85 90

<210> 557  
 <211> 678  
 <212> DNA  
 <213> Homo sapiens

<400> 557  
 atcttcccgg tttatgagga gaatgcgctg cgtgtcgagt ttttcggcga cgaaattgag  
 60  
 gccctcacga cgatgcaccc gctcacccgg gaggtcatca gcgaggacga gcaggtctac  
 120  
 gtgttcccgg ctaccacta tgctgccggc ccggaacgta tggagcgggc catagcgtcc  
 180  
 atccagcagg agctcgagga gcgcctggcc gttctagagc gtgatgggaa actgttggag  
 240

gcccaacggt tacgtatgcg tactacctac gatatcgaga tgatgcagca ggtcgggtgcc  
 300  
 tgtgctggca tcgaaaacta ttcgcggcac atcgacggac gcgctcccgg ctcagccccg  
 360  
 aactgtctgc ttgactactt tccggaagat tttgtgctcg tcattgatga atccccagtg  
 420  
 accgtcccgc agattggcgg gatgtatgag ggggacatga gccgcaagcg gacattggta  
 480  
 gaacatgggt tccgactgcc cagcgcgatg gacaaccgtc ctctcaaatt cgacgagttc  
 540  
 acccagcgga tcggccagac tgtctacctg tccgccacgc ccggttcgta cgagaccgaa  
 600  
 cgagctcacy gcgtcgtcga acaaatcatt cgtccgacag gtctgggtgga tccggagatt  
 660  
 atcgtcaagc ctacgcgt  
 678

<210> 558

<211> 226

<212> PRT

<213> Homo sapiens

<400> 558

Ile	Phe	Pro	Val	Tyr	Glu	Glu	Asn	Ala	Leu	Arg	Val	Glu	Phe	Phe	Gly
1				5					10					15	
Asp	Glu	Ile	Glu	Ala	Leu	Thr	Thr	Met	His	Pro	Leu	Thr	Gly	Glu	Val
			20					25					30		
Ile	Ser	Glu	Asp	Glu	Gln	Val	Tyr	Val	Phe	Pro	Ala	Thr	His	Tyr	Val
		35					40					45			
Ala	Gly	Pro	Glu	Arg	Met	Glu	Arg	Ala	Ile	Ala	Ser	Ile	Gln	Gln	Glu
	50					55					60				
Leu	Glu	Glu	Arg	Leu	Ala	Val	Leu	Glu	Arg	Asp	Gly	Lys	Leu	Leu	Glu
65				70					75					80	
Ala	Gln	Arg	Leu	Arg	Met	Arg	Thr	Thr	Tyr	Asp	Ile	Glu	Met	Met	Gln
			85						90					95	
Gln	Val	Gly	Ala	Cys	Ala	Gly	Ile	Glu	Asn	Tyr	Ser	Arg	His	Ile	Asp
			100					105					110		
Gly	Arg	Ala	Pro	Gly	Ser	Ala	Pro	Asn	Cys	Leu	Leu	Asp	Tyr	Phe	Pro
		115					120					125			
Glu	Asp	Phe	Val	Leu	Val	Ile	Asp	Glu	Ser	His	Val	Thr	Val	Pro	Gln
	130					135					140				
Ile	Gly	Gly	Met	Tyr	Glu	Gly	Asp	Met	Ser	Arg	Lys	Arg	Thr	Leu	Val
145				150					155					160	
Glu	His	Gly	Phe	Arg	Leu	Pro	Ser	Ala	Met	Asp	Asn	Arg	Pro	Leu	Lys
			165					170						175	
Phe	Asp	Glu	Phe	Thr	Gln	Arg	Ile	Gly	Gln	Thr	Val	Tyr	Leu	Ser	Ala
			180					185					190		
Thr	Pro	Gly	Ser	Tyr	Glu	Thr	Glu	Arg	Ala	His	Gly	Val	Val	Glu	Gln
	195					200					205				
Ile	Ile	Arg	Pro	Thr	Gly	Leu	Val	Asp	Pro	Glu	Ile	Ile	Val	Lys	Pro
	210					215					220				
Thr	Arg														
225															



<210> 559  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 559  
 ggatcctatg gagctcaagt tcaagaaaag aaactgtaaa catggagggt ttgtgataaa  
 60  
 tggaatgcag tcagagggaa ggaactgcn gcttaaagtg tcctatgctg cgctttccag  
 120  
 agcaatacag tacacagtgg agggcgctac catggagtct ctgggtgaaa gttaggatgg  
 180  
 tatgggtggca ccagccaaac ttctcagggt tcataggcag acagcagctc tggagtggaa  
 240  
 ctaaagtgtg tccaggagct gaagccetta atcagctagg gctcacacag agtcaaggta  
 300  
 gggtcacaaa cattcagtct gggaccatat ctaga  
 335

<210> 560  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 560  
 Met Glu Cys Ser Gln Arg Glu Gly Thr Ala Xaa Leu Lys Cys Pro Met  
 1 5 10 15  
 Leu Arg Phe Pro Glu Gln Tyr Ser Thr Gln Trp Arg Ala Leu Pro Trp  
 20 25 30  
 Ser Leu Trp Val Lys Val Arg Met Val Trp Trp His Gln Pro Asn Phe  
 35 40 45  
 Ser Gly Phe Ile Gly Arg Gln Gln Leu Trp Ser Gly Thr Lys Val Tyr  
 50 55 60  
 Pro Gly Ala Glu Ala Leu Asn Gln Leu Gly Leu Thr Gln Ser Gln Gly  
 65 70 75 80  
 Arg Val Lys Asn Ile Gln Ser Gly Thr Ile Ser Arg  
 85 90

<210> 561  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<400> 561  
 ngcgcgcccc ctctctccgat ggcggcgagg atccagccca agcctctgac ccgcaagccg  
 60  
 atcctgctgc agcggatgga ggggtccag gaggtggtga atatggccgt gatcgtgccc  
 120  
 aaagaggagg gcgtcatcag cgtctccgag gacaggacag ttcgtgtttg gttaaagaga  
 180  
 gacagtggac agtattggcc aagcgtatac catgcaatgc cttgagttta tattgtcaga  
 240  
 agattataac aagatgactc ctgtgaaaaa ctatcaagcg catcagagca gagtgcagat  
 300

gacccctgttt gtccctggagc tggagtgggt gctgagcaca ggacaggaca agcaatttgc  
 360  
 ctggcactgc tctgagagtg ggcagcgctt gggaggttat cggaccagtg ctgtggcctc  
 420  
 aggccctgcaa tttgatgttg aaaccggca tgtgtttatc ggtgaccact caggcca  
 477

<210> 562  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 562  
 Xaa Ala Pro Pro Pro Pro Met Ala Ala Glu Ile Gln Pro Lys Pro Leu  
 1 5 10 15  
 Thr Arg Lys Pro Ile Leu Leu Gln Arg Met Glu Gly Ser Gln Glu Val  
 20 25 30  
 Val Asn Met Ala Val Ile Val Pro Lys Glu Glu Gly Val Ile Ser Val  
 35 40 45  
 Ser Glu Asp Arg Thr Val Arg Val Trp Leu Lys Arg Asp Ser Gly Gln  
 50 55 60  
 Tyr Trp Pro Ser Val Tyr His Ala Met Pro  
 65 70

<210> 563  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 563  
 ccattggcaga cagggagctg agcggcctgc ggaccaggt gcaccagagc atggtgcccc  
 60  
 tgctcctaca cctgaaggac caatgcccaa ctgtcgccac gggcaatgcc caccacaaga  
 120  
 aaaggaaggg aaaaggcctc aaccttggcc agggctggaa cccacaggag gccaggggtac  
 180  
 ggggcagacg gatggcagca gcaactgctg agagtgggg gagctccac ggggcagcaa  
 240  
 gtggcgggca gaggtcttg ccattctgac tggttctgt gaccacagtt ggctgccccg  
 300  
 ctccccact gcaccactga cgaagcgaga cctgcctca aaaaaaaaaa caaaaacaaa  
 360  
 aacaaaaaca aaactcaaac ttcacactgg agatctgtgc aat  
 403

<210> 564  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 564  
 Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val His Gln Ser  
 1 5 10 15  
 Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro Thr Val Ala

20 25 30  
 Thr Gly Asn Ala His Pro Lys Lys Arg Lys Gly Lys Gly Leu Asn Leu  
 35 40 45  
 Gly Gln Gly Trp Asn Pro Gln Glu Ala Arg Val Arg Gly Arg Arg Met  
 50 55 60  
 Ala Ala Ala Leu Pro Glu Ser Trp Gly Ser Ser His Gly Ala Ala Ser  
 65 70 75 80  
 Gly Gly Gln Arg Val Trp Pro Ser Ala Leu Val Ser Val Thr Thr Val  
 85 90 95  
 Gly Leu Pro Ala Pro Pro Leu His His  
 100 105

<210> 565  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<400> 565  
 ncctctccat ggagcagccc catcttcaact cttcacctgg ggccaggcct tccacagcag  
 60  
 ccaccaccca gcgaccacag agaggctgcg cggaggacac aggagagagg gagcccacgg  
 120  
 gcacgatctc caccggcttt cccagctccc tgggtcagcc ccacgggacc tctctctctc  
 180  
 tctcccatat ctccaagcca gccttgcata tagtaagagc tgtgatcagg atggaaagag  
 240  
 gcttgggccc cacagacctg gacaatgtcc cagtgagggc tggaggtgct agaagggcac  
 300  
 aggaggcccc n  
 311

<210> 566  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 566  
 Met Glu Gln Pro His Leu His Ser Ser Pro Gly Ala Arg Pro Ser Thr  
 1 5 10 15  
 Ala Ala Thr Thr Gln Arg Pro Gln Arg Gly Cys Ala Glu Asp Thr Gly  
 20 25 30  
 Glu Arg Glu Pro Thr Gly Thr Ile Ser Thr Gly Phe Pro Ser Ser Leu  
 35 40 45  
 Gly Gln Pro His Gly Thr Ser Pro Pro Leu Ser His Ile Ser Lys Pro  
 50 55 60  
 Ala Leu His Ile Val Arg Ala Val Ile Arg Met Glu Arg Gly Leu Gly  
 65 70 75 80  
 Arg Thr Asp Leu Asp Asn Val Pro Val Arg Ala Gly Gly Ala Arg Arg  
 85 90 95  
 Ala Gln Glu Ala Pro  
 100

<210> 567  
 <211> 929

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

atcacatcgg tcgctgaacc ccgacgagcc tcacctgtgc gaaatattca tccttgagat  
 60  
 cagcccacgt gccgtcgacc tctacctcgg tgaggggtgc gggcgggtac caacagccga  
 120  
 cctcgtcctc ggctccactc atggcggcaa gtcccgctgc cagtccgggg atcgtcgggg  
 180  
 catgggcgat gatgagcagg ttatccacat cgtcgtcgat ttctccgatg cgccgacgca  
 240  
 cggatcagt gccgcagtaa tagagggtc gcataaattc gaccggacaa tccagttgga  
 300  
 ggcagtccca ggtctggcgg gtgcgtaggg catcggagac cagagcatgt ccaacattgc  
 360  
 gcagtcctaa acgcgtgccg acctcacggg cctgaaggcg cccacgtcg gtgagcggag  
 420  
 gctcccgatc cccgcccga gcatgggatg cgggctgtgc atgtctcatg aggaacagag  
 480  
 tgtgcatgga tccatcggtg cacttcggcg tcgcgcgggt tctacgatgt tggcatgccg  
 540  
 ttgacggatt tgggcattga tgaggcgcgt acctaccgcc cgaacgtccc tgaaccgat  
 600  
 ggtttcgact ctttttgggc cgagaccctc gatgagtatt ccggcggtcc ccaagatctg  
 660  
 acggcgggtgc ctttcgataa ccgtcaggct ctgatagata cctgggattt gtcgtgggtg  
 720  
 gggatcaca actctcgggt gagcgggtga ttacatgcc cagccgctgt gaacggccca  
 780  
 ttcccccttg tcatcgagta cctcgggtac tcgagttcgc gtggtgtgcc gattggatca  
 840  
 gtcttcgtg ctgctggcta tgcacatata gtcgtcgatc cacgtggtca ggggtggggc  
 900  
 caccacacct tgacggaaaa ctgtccgga  
 929

&lt;210&gt; 568

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 568

Met Pro Leu Thr Asp Leu Gly Ile Asp Glu Ala Arg Thr Tyr Arg Pro  
 1 5 10 15  
 Asn Val Pro Glu Pro Asp Gly Phe Asp Ser Phe Trp Ala Glu Thr Leu  
 20 25 30  
 Asp Glu Tyr Ser Gly Val Pro Gln Asp Leu Thr Ala Val Pro Phe Asp  
 35 40 45  
 Asn Arg Gln Ala Leu Ile Asp Thr Trp Asp Leu Ser Trp Val Gly Tyr  
 50 55 60  
 His Asn Ser Arg Val Ser Gly  
 65 70

<210> 569  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<400> 569  
 ncgcaaactt caacggtgcc atctgccata ttccagggat gccagatttg gatggaaaat  
 60  
 accatatcac tctcgattca gaattcgtac ttgatttagt ggcctttaac aaaacgctac  
 120  
 ctgtcgatta cttaatggtc gaaggaacgg aacttggtga ttcaaactg gaagaactac  
 180  
 ctgaatgccc atattatcca aaagatcaaa agccaatcgt gattgggaaa aacacaaaac  
 240  
 tcaaggaaca accaacagcc gtgctctct tctcggatgt tgataaacgg ccagagatta  
 300  
 aatcaaaaat cttagaccgc tatgataatg atattgaaat ccgtacttgg ggcggtactt  
 360  
 cccatgtcta n  
 371

<210> 570  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 570  
 Met Pro Asp Leu Asp Gly Lys Tyr His Ile Thr Leu Asp Ser Glu Phe  
 1 5 10 15  
 Val Leu Asp Leu Val Ala Phe Asn Lys Thr Leu Pro Val Asp Tyr Leu  
 20 25 30  
 Met Val Glu Gly Thr Glu Leu Val Tyr Ser Asn Met Glu Glu Leu Pro  
 35 40 45  
 Glu Cys Pro Tyr Tyr Pro Lys Asp Gln Lys Pro Ile Val Ile Gly Lys  
 50 55 60  
 Asn Thr Lys Leu Lys Glu Gln Pro Thr Ala Val Ala Leu Phe Ser Asp  
 65 70 75 80  
 Val Asp Lys Arg Pro Glu Ile Lys Ser Lys Ile Leu Asp Arg Tyr Asp  
 85 90 95  
 Asn Asp Ile Glu Ile Arg Thr Trp Gly Gly Thr Ser His Val Xaa  
 100 105 110

<210> 571  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 571  
 nacgcgtatc ttcgctggtc cacaccagac gtggcattaa acgacgtcac aagaacgaca  
 60  
 ccgggccttg acgggcccac gcacgaagag gccaaagacac tgaccgagac tactgtttcc  
 120  
 gttccacact ccttcgccga cctcggcgtc cgagaagata tctgccaggc gctggaaggg  
 180

gtgggaattg tctccccgtt cccgateccag gccatgtcga tcccgattgc cgtcgagggc  
 240  
 acggatctta ttgggcaggc gcgtactggc actggcaaaa cactcgcctt cggcatcacc  
 300  
 atcttgacgc gcataccct gcccggtgac gaaggttggg aagaactcac caccaaaggc  
 360  
 aagcccccaa gcactcgtga tgtgcccta cccgggagct aggtcgg  
 407

<210> 572  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 572  
 Leu Thr Glu Thr Thr Val Ser Val Pro Thr Ser Phe Ala Asp Leu Gly  
 1 5 10 15  
 Val Arg Glu Asp Ile Cys Gln Ala Leu Glu Gly Val Gly Ile Val Ser  
 20 25 30  
 Pro Phe Pro Ile Gln Ala Met Ser Ile Pro Ile Ala Val Glu Gly Thr  
 35 40 45  
 Asp Leu Ile Gly Gln Ala Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe  
 50 55 60  
 Gly Ile Thr Ile Leu Gln Arg Ile Thr Leu Pro Gly Asp Glu Gly Trp  
 65 70 75 80  
 Glu Glu Leu Thr Thr Lys Gly Lys Pro Pro Ser Thr Arg Asp Val Pro  
 85 90 95  
 Leu Pro Gly Ser  
 100

<210> 573  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 573  
 acgcgtctac cgtaggatcc atgaccttcc gcaagaccga ccaccacaag aacgccattg  
 60  
 actacgaggt cgccggacta atgtggctcg ctgctgccc gccagatggg gccggcatcg  
 120  
 tcgaggtgct cgaccacggc aagggatggc tcaccgaacc cgaattgtcc actgggcacc  
 180  
 ccacccgcga ggcagccgag gactttggcc gccgactggc tcacacccac gcagccgggg  
 240  
 cctcacacct gggggctgca cctgacgggt ttgttccga cgatgggtat atcggccgtg  
 300  
 ctccccctgcc actgccgtcc gaaccaatct cctcctgggg agagttttac gctcagtgcc  
 360  
 gcacgaacc atatatggac agtctcgacg ctg  
 393

<210> 574  
 <211> 124  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 574

```

Met Thr Phe Arg Lys Thr Asp His His Lys Asn Ala Ile Asp Tyr Glu
 1           5           10           15
Val Ala Gly Leu Met Trp Leu Ala Ala Arg Pro Asp Gly Ala Gly
      20           25           30
Ile Val Glu Val Leu Asp His Gly Lys Gly Trp Leu Thr Glu Pro Glu
      35           40           45
Leu Ser Thr Gly His Pro Thr Arg Glu Ala Ala Glu Asp Phe Gly Arg
      50           55           60
Arg Leu Ala His Thr His Ala Ala Gly Ala Ser His Leu Gly Ala Ala
      65           70           75           80
Pro Asp Gly Phe Val Pro Asp Asp Gly Tyr Ile Gly Arg Ala Pro Leu
      85           90           95
Pro Leu Pro Ser Glu Pro Ile Ser Ser Trp Gly Glu Phe Tyr Ala Gln
      100          105          110
Cys Arg Ile Glu Pro Tyr Met Asp Ser Leu Asp Ala
      115          120

```

&lt;210&gt; 575

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

```

nntatccatg cagacatggg accaggggtct ctgagggcag gaagcaaagt gggtgagggg
60
gatgggacaa gatgccctgg tgctaaggcc tctggagctg gagctggtta tagggatgat
120
accaggcacc ctgagtcact cgcacctcac aatggggcgc cttctgggag ccagtgggct
180
tatggggctg gcaatgtgct gggttatgag gatggatcag aacttccagg gcctcaggga
240
actgggggtca gaacagccta tggagaaagg tcaaggggccc ttgggcctag gagtacaggg
300
ccaggggggtg aggcaggctt tagagatggt tcaggaggcc tccaaggaat gggatcagca
360
gatgggcccc gt
372

```

&lt;210&gt; 576

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 576

```

Xaa Ile His Ala Asp Met Gly Pro Gly Ser Leu Arg Ala Gly Ser Lys
 1           5           10           15
Val Gly Glu Gly Asp Gly Thr Arg Cys Pro Gly Ala Lys Ala Ser Gly
      20           25           30
Ala Gly Ala Gly Tyr Arg Asp Asp Thr Arg His Pro Glu Ser Leu Ala
      35           40           45
Pro His Asn Gly Ala Ala Ser Gly Ser Gln Trp Ala Tyr Gly Ala Gly

```

50		55		60
Asn Val Leu Gly Tyr Glu Asp Gly Ser Glu Leu Pro Gly Pro Gln Gly				
65		70		75
Thr Gly Val Arg Thr Ala Tyr Gly Glu Arg Ser Arg Gly Leu Gly Pro				80
	85		90	95
Arg Ser Thr Gly Pro Gly Gly Glu Ala Gly Phe Arg Asp Gly Ser Gly				
	100		105	110
Gly Leu Gln Gly Met Gly Ser Ala Asp Gly Pro Gly				
115		120		

&lt;210&gt; 577

&lt;211&gt; 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 577

```

nagcgcaatg tcatgatgtc ggatttgtca atgtcggatt tctcatccca gccatcaccc
60
ccgcagcggc gggcgcgat gaccagcggc cagcgccgtg aacagctcat cagcgtggcc
120
cgtcgctct tcgcagacaa tggcatggca gggacctccg tcgaggagat cgccgctacc
180
gcgggagtct ccaaaccctg catctacgag catttcgggt ccaaggatgg gctgtacgcc
240
gtcgtcgtag accgcgaggt acgccaccta caagattccc tcaacgccgc catgaccgcg
300
ccaaagcaag gcccgaacg caccctggag tcagcggtag tggccctgct ggactacatc
360
gacgaccgtc cagacggttt tcggatcatc tcgcgagact cctcggtcgg ttcagccacc
420
ggttcgtacg cg
432

```

&lt;210&gt; 578

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

Met Thr Ser Gly Gln Arg Arg Glu Gln Leu Ile Ser Val Ala Arg Arg				
1	5	10	15	
Leu Phe Ala Asp Asn Gly Met Ala Gly Thr Ser Val Glu Glu Ile Ala				
	20	25	30	
Ala Thr Ala Gly Val Ser Lys Pro Val Ile Tyr Glu His Phe Gly Ser				
	35	40	45	
Lys Asp Gly Leu Tyr Ala Val Val Val Asp Arg Glu Val Arg His Leu				
50	55	60		
Gln Asp Ser Leu Asn Ala Ala Met Thr Arg Pro Lys Gln Gly Pro Lys				
65	70	75	80	
Arg Thr Leu Glu Ser Ala Val Leu Ala Leu Leu Asp Tyr Ile Asp Asp				
	85	90	95	
Arg Pro Asp Gly Phe Arg Ile Ile Ser Arg Asp Ser Ser Val Gly Ser				
	100	105	110	
Ala Thr Gly Ser Tyr Ala				



115

<210> 579  
 <211> 320  
 <212> DNA  
 <213> Homo sapiens

<400> 579  
 ggccccaaac actccgacct cagctggtcc agcatgctgg gcaccgtgct gctgctggcc  
 60  
 ctgctcccag ggatcaccac cttaccacagc gggccacctg ctcccccggt ccccgcggcg  
 120  
 cccggcccct ggctgcgag accctcttcc agcctgaagc tgtccgacac agaggacgtc  
 180  
 tttctcgcc gcgcggggcc gctcgaggtc ccggccgaca gccgcgtgtt cgtgcaggcg  
 240  
 gccttgcccc gtccctcccc gcgctggggc ctggccctgc accgctgctc agtgacgccc  
 300  
 tctcacgcc cggccccggg  
 320

<210> 580  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 580  
 Met Leu Gly Thr Val Leu Leu Leu Ala Leu Leu Pro Gly Ile Thr Thr  
 1 5 10 15  
 Leu Pro Ser Gly Pro Pro Ala Pro Pro Phe Pro Ala Ala Pro Gly Pro  
 20 25 30  
 Trp Leu Arg Arg Pro Leu Phe Ser Leu Lys Leu Ser Asp Thr Glu Asp  
 35 40 45  
 Val Phe Pro Arg Arg Ala Gly Pro Leu Glu Val Pro Ala Asp Ser Arg  
 50 55 60  
 Val Phe Val Gln Ala Ala Leu Ala Arg Pro Ser Pro Arg Trp Gly Leu  
 65 70 75 80  
 Ala Leu His Arg Cys Ser Val Thr Pro Ser Ser Arg Pro Ala Pro  
 85 90 95

<210> 581  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 581  
 nacgacggca accattcgct gtggaaggag ctgaacggcc agctcgacgt gcagtttttc  
 60  
 cacgtcggca tgggcttcaa gacgccagta cgcattgcaca gcgtcgaccc caagacccgc  
 120  
 gaagcccgcg aggtgcattt ccgcccgctc ctgttcaact atgccaagac cacggtggac  
 180  
 accaagcagc tgaccggcga cctgggtttc tccggtttca agctgttcaa ggcgccggaa  
 240

ctggatcgcc atgacgtgct gtcgtttctc ggcgccagtt acttccgtgc ggtggacgca  
 300  
 acccgccagt acggcctctc cgcacgcggc ctggcgattg atacctacgc gaaaaaacgc  
 360  
 gaggaattcc ccgacttcac gcagttctgg ttcgaaaccc cgagcaagga cccacgcgt  
 419

<210> 582

<211> 139

<212> PRT

<213> Homo sapiens

<400> 582

Xaa	Asp	Gly	Asn	His	Ser	Leu	Trp	Lys	Glu	Leu	Asn	Gly	Gln	Leu	Asp
1				5				10					15		
Val	Gln	Phe	Phe	His	Val	Gly	Met	Gly	Phe	Lys	Thr	Pro	Val	Arg	Met
			20					25				30			
His	Ser	Val	Asp	Pro	Lys	Thr	Arg	Glu	Ala	Arg	Glu	Val	His	Phe	Arg
		35				40					45				
Pro	Ser	Leu	Phe	Asn	Tyr	Ala	Lys	Thr	Thr	Val	Asp	Thr	Lys	Gln	Leu
	50				55					60					
Thr	Gly	Asp	Leu	Gly	Phe	Ser	Gly	Phe	Lys	Leu	Phe	Lys	Ala	Pro	Glu
65				70				75						80	
Leu	Asp	Arg	His	Asp	Val	Leu	Ser	Phe	Leu	Gly	Ala	Ser	Tyr	Phe	Arg
			85					90						95	
Ala	Val	Asp	Ala	Thr	Arg	Gln	Tyr	Gly	Leu	Ser	Ala	Arg	Gly	Leu	Ala
			100					105					110		
Ile	Asp	Thr	Tyr	Ala	Lys	Lys	Arg	Glu	Glu	Phe	Pro	Asp	Phe	Thr	Gln
		115				120						125			
Phe	Trp	Phe	Glu	Thr	Pro	Ser	Lys	Asp	Pro	Arg					
	130					135									

<210> 583

<211> 407

<212> DNA

<213> Homo sapiens

<400> 583

cttttgatca atgctgatgg cacgaagcta tcgaaaaggt cgggtgatgt ccgcgtagct  
 60  
 gattatatgg agcagggatg ggagccggag acgctggtga acctagttgc cctcacgggc  
 120  
 tatagctatg cgaatttgga gcattgctgat catgatgtca agacgatgaa cgaactcatc  
 180  
 cgtgactttg agcttactcg tatctcccat acgcgagcca cactcccat ggacaagctt  
 240  
 gtgtttttga acaagcatca cttgacaaat aagctggcgc tcgccacgac gtgtgagcag  
 300  
 accaaacaag acctattgtc gcgtatccgg ccgatcacta cctcgtggta cggcgattat  
 360  
 tcagatgatt atactctgcg cgtcgtaaca ctgggacccc aacgcgt  
 407

<210> 584

<211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 584  
 Leu Leu Ile Asn Ala Asp Gly Thr Lys Leu Ser Lys Arg Ser Gly Asp  
 1 5 10 15  
 Val Arg Val Ala Asp Tyr Met Glu Gln Gly Trp Glu Pro Glu Thr Leu  
 20 25 30  
 Val Asn Leu Val Ala Leu Thr Gly Tyr Ser Tyr Ala Asn Leu Glu His  
 35 40 45  
 Ala Asp His Asp Val Lys Thr Met Asn Glu Leu Ile Arg Asp Phe Glu  
 50 55 60  
 Leu Thr Arg Ile Ser His Thr Arg Ala Thr Leu Pro Met Asp Lys Leu  
 65 70 75 80  
 Val Phe Leu Asn Lys His His Leu Thr Asn Lys Leu Ala Leu Ala Thr  
 85 90 95  
 Thr Cys Glu Gln Thr Lys Gln Asp Leu Leu Ser Arg Ile Arg Pro Ile  
 100 105 110  
 Thr Thr Ser Trp Tyr Gly Asp Tyr Ser Asp Asp Tyr Ile Leu Arg Val  
 115 120 125  
 Val Thr Leu Gly Pro Gln Arg  
 130 135

<210> 585  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

<400> 585  
 nnacgcgtcc tcgctggata tgaggctgtg aagaggggaac gctgcgtcat tgatctggac  
 60  
 gatattttgt tgtgcgcggt gggattgttg gttcagcacc gtgacatcac tgaggagatt  
 120  
 cgggctcggt accgacattt cgttgctgac gaataccagg acgtttctcc gctgcagcat  
 180  
 aggttgcttg aactgtggtt tggcgatcga aatgatgtat gcgtcgtggg agatccgcac  
 240  
 caggccattc actcttatgc aggcgcacga gctgactacc tctcgaactt cgttgccgat  
 300  
 catcctggcg ctacacgcac cgatttggtt cgcaactacc gctccactcc cgagatcggt  
 360  
 cagttggcca atgaagttct tgtcaaccgt atgactccag aggaggcttt ggaacatggc  
 420  
 aggggagtc aattggtttc ggggggtcga tccgggtccg agcccatcta tcaggctctc  
 480  
 ggggacgatg cctccgaagc tt  
 502

<210> 586  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 586

Xaa Arg Val Leu Ala Gly Tyr Glu Ala Val Lys Arg Glu Arg Cys Val  
 1 5 10 15  
 Ile Asp Leu Asp Asp Ile Leu Leu Cys Ala Val Gly Leu Leu Val Gln  
 20 25 30  
 His Arg Asp Ile Thr Glu Glu Ile Arg Ala Arg Tyr Arg His Phe Val  
 35 40 45  
 Val Asp Glu Tyr Gln Asp Val Ser Pro Leu Gln His Arg Leu Leu Glu  
 50 55 60  
 Leu Trp Phe Gly Asp Arg Asn Asp Val Cys Val Val Gly Asp Pro His  
 65 70 75 80  
 Gln Ala Ile His Ser Tyr Ala Gly Ala Arg Ala Asp Tyr Leu Leu Asp  
 85 90 95  
 Phe Val Ala Asp His Pro Gly Ala Lys Arg Ile Asp Leu Val Arg Asn  
 100 105 110  
 Tyr Arg Ser Thr Pro Glu Ile Val Gln Leu Ala Asn Glu Val Leu Val  
 115 120 125  
 Asn Arg Met Thr Pro Glu Glu Ala Leu Glu His Gly Arg Gly Val Thr  
 130 135 140  
 Leu Val Ser Arg Gly Arg Ser Gly Pro Glu Pro Ile Tyr Gln Ala Leu  
 145 150 155 160  
 Gly Asp Asp Ala Ser Glu Ala  
 165

&lt;210&gt; 587

&lt;211&gt; 746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 587

gcgtcctgcc tcgagggcct cgggagcttc cgetgcctct gttggccagg ctacagcggc  
 60  
 gagctgtgcg aggtggacga ggacgagtgt gcatcgagcc cctgccagca tgggggcccga  
 120  
 tgccctgcagc gctctgaccc ggccctctac gggggtgtcc aggccgcctt ccctggcgcc  
 180  
 ttcagcttcc gccatgctgc gggtttctg tgccactgcc ctcttggtt tgagggagcc  
 240  
 gactgcggtg tggaggtgga cgagtgtgcc tcacggccat gcctcaatgg aggccactgc  
 300  
 caggacctgc ccaatggctt ccagtgtcac tgcccagatg gctacgcagg gccgacatgt  
 360  
 gaggaagatg tggatgaatg cctgtccgat ccctgcctgc acggcggaac ctgcagtgc  
 420  
 actgtggcag gctatatctg caggtgcccc gagacctggg gtgggcgcga ctgttctgtg  
 480  
 cagctcactg gctgccaggg ccacacctgc ccgctggctg ccacctgcat ccctatcttc  
 540  
 gagtctgggg tcacagtta cgtctgccac tgcccacctg gtacctatgg accgttctgt  
 600  
 ggccagaata ccaccttctc tgtgatggct gggagcccca ttcaggcatc agtgccagct  
 660  
 ggtggccccc tgggtctggc actgaggttt cgcaccacac tgcccgtgg gaccttggcc  
 720

actcgcaatg acaccaagga aagctt  
746

<210> 588

<211> 248

<212> PRT

<213> Homo sapiens

<400> 588

Ala Ser Cys Leu Glu Gly Leu Gly Ser Phe Arg Cys Leu Cys Trp Pro  
1 5 10 15  
Gly Tyr Ser Gly Glu Leu Cys Glu Val Asp Glu Asp Glu Cys Ala Ser  
20 25 30  
Ser Pro Cys Gln His Gly Gly Arg Cys Leu Gln Arg Ser Asp Pro Ala  
35 40 45  
Leu Tyr Gly Gly Val Gln Ala Ala Phe Pro Gly Ala Phe Ser Phe Arg  
50 55 60  
His Ala Ala Gly Phe Leu Cys His Cys Pro Pro Gly Phe Glu Gly Ala  
65 70 75 80  
Asp Cys Gly Val Glu Val Asp Glu Cys Ala Ser Arg Pro Cys Leu Asn  
85 90 95  
Gly Gly His Cys Gln Asp Leu Pro Asn Gly Phe Gln Cys His Cys Pro  
100 105 110  
Asp Gly Tyr Ala Gly Pro Thr Cys Glu Glu Asp Val Asp Glu Cys Leu  
115 120 125  
Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val Ala Gly  
130 135 140  
Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys Ser Val  
145 150 155 160  
Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala Thr Cys  
165 170 175  
Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His Cys Pro  
180 185 190  
Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe Ser Val  
195 200 205  
Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro Leu  
210 215 220  
Gly Leu Ala Leu Arg Phe Arg Thr Thr Leu Pro Ala Gly Thr Leu Ala  
225 230 235 240  
Thr Arg Asn Asp Thr Lys Glu Ser  
245

<210> 589

<211> 381

<212> DNA

<213> Homo sapiens

<400> 589

atctcacaag tacaattaca gtctcaagaa ctgagctatc agcaaaagca aggtcttcag  
60  
ccagtacctc tgcaagccac tatgagtgtc gcaactggta tccagccatc gctgtgtaaat  
120  
gtgggttggtg taacttcagc tttagggtcag cagccttcca tttccagttt ggctcaaccc  
180

cagctaccat attctcaggc ggctcctcca gtgcaaactc cccttcagg ggccaccacca  
 240  
 cccaacagt tacagtatgg acaacagcaa ccaatgggtt ctacacagat ggccccaggc  
 300  
 catgtcaaat cagtgactca aaatcctgct tcagagtatg tacaacagca gccattctt  
 360  
 caaacagcaa tgtcctccgg a  
 381

<210> 590

<211> 127

<212> PRT

<213> Homo sapiens

<400> 590

Ile	Ser	Gln	Val	Gln	Leu	Gln	Ser	Gln	Glu	Leu	Ser	Tyr	Gln	Gln	Lys
1				5					10					15	
Gln	Gly	Leu	Gln	Pro	Val	Pro	Leu	Gln	Ala	Thr	Met	Ser	Ala	Ala	Thr
		20						25					30		
Gly	Ile	Gln	Pro	Ser	Pro	Val	Asn	Val	Val	Gly	Val	Thr	Ser	Ala	Leu
		35					40					45			
Gly	Gln	Gln	Pro	Ser	Ile	Ser	Ser	Leu	Ala	Gln	Pro	Gln	Leu	Pro	Tyr
		50				55					60				
Ser	Gln	Ala	Ala	Pro	Pro	Val	Gln	Thr	Pro	Leu	Pro	Gly	Ala	Pro	Pro
65					70					75				80	
Pro	Gln	Gln	Leu	Gln	Tyr	Gly	Gln	Gln	Gln	Pro	Met	Val	Ser	Thr	Gln
			85					90					95		
Met	Ala	Pro	Gly	His	Val	Lys	Ser	Val	Thr	Gln	Asn	Pro	Ala	Ser	Glu
		100						105				110			
Tyr	Val	Gln	Gln	Gln	Pro	Ile	Leu	Gln	Thr	Ala	Met	Ser	Ser	Gly	
		115					120					125			

<210> 591

<211> 684

<212> DNA

<213> Homo sapiens

<400> 591

tcgaccatgg atcatctgcg ccacggcatc cacctgctg gttatgcgca gaagaaccg  
 60  
 aagcaggaat acaagcgca gtcgttcacc ctgttctccg agctgctgga ctgatcaag  
 120  
 cgcgattcga ttccgggtct cttccacgct caggggcccgg gggaaaaatc cgtatcgaaa  
 180  
 naaaaagcgc gcctgcgtca ggaagccgaa gccctggccc agcgcattgca gttcgagcac  
 240  
 gctgaagccc caggcctgga cgcgcgggaa atcctcggtg aagaagtcga tgcgcccctg  
 300  
 gccaccgcgc cgttacgcaa cgagcagaag ctggggccgta acgaactgtg ctactgcggt  
 360  
 tcgggcaaga agtacaagca ctgccacggt cagatcagct aaggtcttta ccggatactg  
 420  
 aaatacctgc gccgcgaccg gcattagccg tcgcggcggt ttccatttg aaacactgcc  
 480

cttgtgacgg cagtgcagat atcacattaa aaggagggca ttcattgggtg ttggttctgg  
 540  
 gtccttgccc tacgttgcaac ccggttgccg gttttgaact cggtatcgcc tcggccggta  
 600  
 tcaagcgccc tgggcgcaag gatgtggtgg cgatgcgctg cgccgaaggt tccacggtgg  
 660  
 cgggggtggt taccctcaac gcgt  
 684

<210> 592  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 592  
 Ser Thr Met Asp His Leu Arg His Gly Ile His Leu Arg Gly Tyr Ala  
 1 5 10 15  
 Gln Lys Asn Pro Lys Gln Glu Tyr Lys Arg Glu Ser Phe Thr Leu Phe  
 20 25 30  
 Ser Glu Leu Leu Asp Ser Ile Lys Arg Asp Ser Ile Arg Val Leu Phe  
 35 40 45  
 His Val Gln Gly Pro Gly Glu Lys Ser Val Ser Lys Xaa Lys Ala Arg  
 50 55 60  
 Leu Arg Gln Glu Ala Glu Ala Leu Ala Gln Arg Met Gln Phe Glu His  
 65 70 75 80  
 Ala Glu Ala Pro Gly Leu Asp Ala Pro Glu Ile Leu Gly Glu Glu Val  
 85 90 95  
 Asp Val Ala Leu Ala Thr Ala Pro Val Arg Asn Glu Gln Lys Leu Gly  
 100 105 110  
 Arg Asn Glu Leu Cys Tyr Cys Gly Ser Gly Lys Lys Tyr Lys His Cys  
 115 120 125  
 His Gly Gln Ile Ser  
 130

<210> 593  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

<400> 593  
 nnacgcgtgc agaccgcgcg gagtctcgct ccggtgcgga tagcgtagg ctcccaaacc  
 60  
 tgtgaaaccg tcacggtaga gcgtcggtggc gggctaccac ttagagcggc ccgattcacc  
 120  
 gataccatcc ccgcgcgcgt aggccagcca cgatgggtcga cgccaccat ccagacccca  
 180  
 gtcataccta ctacacgtgg tcgattcggtg atcggtcccg tcatgatgcg caccatcgac  
 240  
 ccgtttggca tggcccgcga tcacaccgat ctcggtcagg ttgccgaagt cattgtcacg  
 300  
 ccaaggatcg tcgatttggg cgctccggg gagctcgggg gtcagggatt cgacacaagg  
 360  
 tcctcagcga tccatgccgg acgacgtggt ccgacgatg ccatggtgcg cgattggcac  
 420

accggagact cgggtgcgacg cattcactgg cgctccaccg ctacccgcgg ggacctcatg  
 480  
 gtccgatgcg aggagcaggc ctggaaccca tccgtcgtca tcgtgttgga ttctcgggct  
 540  
 cggcgtcacg ctggaactgg ccccgacgca tcctttgaat gggccgtcaa cgcggtggca  
 600  
 tccatctcga cgcgt  
 615

<210> 594

<211> 205

<212> PRT

<213> Homo sapiens

<400> 594

Xaa	Arg	Val	Gln	Thr	Ala	Arg	Ser	Leu	Ala	Pro	Val	Arg	Ile	Ala	Leu
1				5				10					15		
Gly	Ser	Gln	Thr	Cys	Glu	Thr	Val	Thr	Val	Glu	Arg	Arg	Gly	Gly	Leu
		20					25					30			
Pro	Leu	Arg	Ala	Ala	Arg	Phe	Thr	Asp	Thr	Ile	Pro	Ala	Pro	Leu	Gly
		35				40					45				
Gln	Pro	Arg	Trp	Ser	Thr	Ala	Thr	Ile	Gln	Thr	Pro	Val	Ile	Pro	Thr
	50				55					60					
Thr	Arg	Gly	Arg	Phe	Val	Ile	Gly	Pro	Val	Met	Met	Arg	Thr	Ile	Asp
65				70				75				80			
Pro	Phe	Gly	Met	Ala	Arg	His	His	Thr	Asp	Leu	Gly	Gln	Val	Ala	Glu
			85					90				95			
Val	Ile	Val	Thr	Pro	Arg	Ile	Val	Asp	Leu	Gly	Ala	Ser	Gly	Glu	Leu
		100						105				110			
Gly	Gly	Gln	Gly	Phe	Asp	Thr	Arg	Ser	Ser	Ala	Ile	His	Ala	Gly	Arg
	115					120						125			
Arg	Gly	Pro	Asp	Asp	Ala	Met	Val	Arg	Asp	Trp	His	Thr	Gly	Asp	Ser
	130				135					140					
Val	Arg	Arg	Ile	His	Trp	Arg	Ser	Thr	Ala	His	Arg	Gly	Asp	Leu	Met
145				150					155					160	
Val	Arg	Cys	Glu	Glu	Gln	Ala	Trp	Asn	Pro	Ser	Val	Val	Ile	Val	Leu
			165					170					175		
Asp	Ser	Arg	Ala	Arg	Arg	His	Ala	Gly	Thr	Gly	Pro	Asp	Ala	Ser	Phe
		180				185						190			
Glu	Trp	Ala	Val	Asn	Ala	Val	Ala	Ser	Ile	Ser	Thr	Arg			
	195					200						205			

<210> 595

<211> 303

<212> DNA

<213> Homo sapiens

<400> 595

acgcgtccta gccgcagtga atgttgctga accccggtga cctcacagtg gaggggcggc  
 60  
 cccatggggc catcgaccg cgcgcgcgg gggcgctgc cagggcctcc gcagaagccc  
 120  
 gcctgtgccc gcaaccgccc cgaaattctc tccttgacac cgtgtccgct ttacggagcc  
 180



cggagcaagg ctcagaaaaa tgtcccagcc aaaaacatgg tacatgcttg tcatcaggca  
 240  
 agtcttcaaa gagcggctgg gaccaggggc cgaggacct cgttttagagg cggttaggg  
 300  
 gga  
 303

<210> 596

<211> 88

<212> PRT

<213> Homo sapiens

<400> 596

Met	Leu	Leu	Asn	Pro	Gly	Asp	Leu	Thr	Val	Glu	Gly	Arg	Pro	His	Gly
1				5					10					15	
Ala	Ile	Gly	Pro	Arg	Arg	Ala	Gly	Ala	Phe	Ala	Arg	Ala	Ser	Ala	Glu
			20				25						30		
Ala	Arg	Leu	Cys	Pro	Gln	Pro	Pro	Arg	Asn	Ser	Leu	Pro	Gly	Thr	Val
		35				40						45			
Ser	Ala	Leu	Arg	Ser	Pro	Glu	Gln	Gly	Ser	Glu	Lys	Cys	Pro	Ser	Gln
	50				55					60					
Lys	His	Gly	Thr	Cys	Leu	Ser	Ser	Gly	Lys	Ser	Ser	Lys	Ser	Gly	Trp
65					70				75					80	
Asp	Gln	Gly	Pro	Arg	Asp	Leu	Val								
					85										

<210> 597

<211> 2709

<212> DNA

<213> Homo sapiens

<400> 597

nacgcgtgca cgcagtgcgg caaagccttc cgctggaagt ccaactttaa tttgcacaag  
 60  
 aagaaccaca tgggtggagaa gacctacgaa tgtaaagaat gcgggaaatc ctttggcgat  
 120  
 ctggtgtccc ggaggaaaca catgaggatt cacatcgta agaaaccgt ggaatgtcgg  
 180  
 cagtgcggga agaccttcg aaaccagtcc atccttaaga ctcacatgaa ctctcacact  
 240  
 ggagagaaac catacgggtg cgatctctgc gggaaagctt tcagcgcgag ttcaaaccctc  
 300  
 accgcacaca ggaagataca cagcaagag agacgctacg aatgcgccgc ctgctgggaaa  
 360  
 gtcttcggtg actatttata ccggcggagg cacatgagcg ttcaccttgt aaagaaacga  
 420  
 gttgagtgtg ggcattgtgg caaggccttc aggaaccagt caacgctgaa gacgcacatg  
 480  
 cgaagccaca cgggggagaa accgtacgaa tgcgatcact gtgggaaggc cttcagcata  
 540  
 ggctccaacc tgaatgtgca caggcggatc cacaccggg agaagcccta cgaatgcctt  
 600  
 gtctgcggga aagccttcag cgaccactca tccctcagga gccacgtgaa aactcaccgg  
 660

ggagagaagc tcttttngtg tcatccgtgt ggaaaaggct ccagtgaagc cgccttgctt  
720  
tagagacaca ggatgattca gaccggaac agacctcgtg ggtgtaagag gaagcctctg  
780  
tgagctcgca ccttactggg tgcaaaagaa tccacggaac ttgggagaag tccagttcct  
840  
gtaaaaactg ggaagacgag gcgttctcat cccataggag gtttgtaga actcacgccg  
900  
ggggtgaaaa tgtacgtctg tagcatggag aagccttcag gtacattcag ctcttaacaa  
960  
acacaggaag acttaatggc agcttggcat ttaatgtcaa aatccaagcc gtggcattta  
1020  
atgtcaaaat gacttcagac cacttctagc cttctgggcc catgagtaat aatgagcaca  
1080  
ctaggagca tctctgtaaa cacagtggct ggggaaaccc ttcctagtct cacttgattc  
1140  
ctcatgacgg aaatcacact aaagagagaa atcagtgaag taaggaacgt ggaaggtcat  
1200  
gaatggggccg caaaccacgg ccagctgctt gtctttgtat ggcttgccag ctaacaatag  
1260  
tggttccatc tttaaggaag aagaatgttt gatggagaaa atttgtggcc aatgaagtct  
1320  
gaaatacttc ctgtcatctg cccctttcca gaaaacttg gccgaccctt ggtctacagc  
1380  
acgggttctc agtcgggcga cgatttggct gtctaggcgt catttgcaa tgtctagaga  
1440  
catttttggg agttagaatg gggggaagat actcctgact tgtaataaga agacatcaga  
1500  
gatgetgcta agtcggctcc agcacacagg agccccccac aacgaagagt tagtgccccc  
1560  
aaacgtcact gttgctgagg ttgaaaataa tcatgcagtc attcctcaat tactgcctgc  
1620  
agcaattcct ccatttttat gaatcttggt agcacttacg ctaggagaaa tttcttttac  
1680  
aaaactttta aaatacaatt agtctgata attcctatgt ggaaatgatt ccagccatgg  
1740  
tccccctact tgagcatgtg aatattctca cggagagaag ccccgagcag attttccggt  
1800  
gaatacggga ttgcacttac tctttcatca cggaaacaga cccccgaga gaagccccaa  
1860  
cgagattttc cgggtaatac gggactgcac gtactctctc atcatgaaa cagagccccg  
1920  
ttcataaatt tttcatcttt atttttaagg ttatactcct ctaaataacc cttagcctc  
1980  
atcaagaaag gtttgtttat agtattttta ctatagcttc atccttgata acgtccta  
2040  
ttccttctgg acaacctcct tgaccaatgg catattgaga tctatgtgac atgaggatat  
2100  
ttctcagtac cactttgtta ctggtacctg atgcacacgg attgcgacca gagcatgatg  
2160  
cctccatcaa gtggtaatat gtttgagcc tgctgtccag ccaagagtga cagatacttc  
2220  
tagtgacttc cccggtatcc actctcatct tcttccaata tcaagagaat ccaggttctg  
2280

tcagattagt aaggtgtgct aatctaaatt ttaaaaaatc tcttacaggt tttcttgag  
 2340  
 ctggtaccat ccatgtctca cagccctggc cactgacaga tcagcagatg tcaccacgtg  
 2400  
 ggcttctgag aaagctcttg aatggggatc gttcttaaac atgaattcct cctgtatgt  
 2460  
 tttgttcttt gctttacttt tcaccttgca aagagatcca gtacctagta ttggaagatc  
 2520  
 caccttaacg accgtgcata tgaaaaccac agtctaagga agtgactgca gaaagctcac  
 2580  
 agcgaccctg gcctcccctg tggcctcttt gagtgtctgc agcagccctg gacttccaga  
 2640  
 cttctatcac atgagaaaaa ataaaactga ttattggttt aagctgcaaa aaaaaaaaaa  
 2700  
 aaaaaaaaaa  
 2709

&lt;210&gt; 598

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 598

Xaa	Ala	Cys	Thr	Gln	Cys	Gly	Lys	Ala	Phe	Arg	Trp	Lys	Ser	Asn	Phe	
1				5					10					15		
Asn	Leu	His		Lys	Lys	Asn	His	Met	Val	Glu	Lys	Thr	Tyr	Glu	Cys	Lys
			20					25						30		
Glu	Cys	Gly	Lys	Ser	Phe	Gly	Asp	Leu	Val	Ser	Arg	Arg	Lys	His	Met	
		35				40						45				
Arg	Ile	His	Ile	Val	Lys	Lys	Pro	Val	Glu	Cys	Arg	Gln	Cys	Gly	Lys	
	50					55					60					
Thr	Phe	Arg	Asn	Gln	Ser	Ile	Leu	Lys	Thr	His	Met	Asn	Ser	His	Thr	
65				70					75					80		
Gly	Glu	Lys	Pro	Tyr	Gly	Cys	Asp	Leu	Cys	Gly	Lys	Ala	Phe	Ser	Ala	
			85					90						95		
Ser	Ser	Asn	Leu	Thr	Ala	His	Arg	Lys	Ile	His	Thr	Gln	Glu	Arg	Arg	
		100						105					110			
Tyr	Glu	Cys	Ala	Ala	Cys	Gly	Lys	Val	Phe	Gly	Asp	Tyr	Leu	Ser	Arg	
	115						120					125				
Arg	Arg	His	Met	Ser	Val	His	Leu	Val	Lys	Lys	Arg	Val	Glu	Cys	Arg	
	130					135					140					
His	Cys	Gly	Lys	Ala	Phe	Arg	Asn	Gln	Ser	Thr	Leu	Lys	Thr	His	Met	
145			150						155					160		
Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asp	His	Cys	Gly	Lys	
		165						170					175			
Ala	Phe	Ser	Ile	Gly	Ser	Asn	Leu	Asn	Val	His	Arg	Arg	Ile	His	Thr	
		180					185						190			
Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Leu	Val	Cys	Gly	Lys	Ala	Phe	Ser	Asp	
	195						200				205					
His	Ser	Ser	Leu	Arg	Ser	His	Val	Lys	Thr	His	Arg	Gly	Glu	Lys	Leu	
	210					215					220					
Phe	Xaa	Cys	His	Pro	Cys	Gly	Lys	Gly	Ser	Ser	Glu	Arg	Ala	Xaa	Leu	
225					230					235					240	

<210> 599  
 <211> 340  
 <212> DNA  
 <213> Homo sapiens

<400> 599  
 acgcgtgcct cgcgactctt gacgtcgtgg tggctgcgct cggcgtgtc actcctcttg  
 60  
 ttccggcgta tggcgcaggt gctaggcgtg gccgtgcata tgagtctgca ccgctttgcc  
 120  
 caggcatgtt tgccggggccg catcccttgc acttgacgtc cgtggcctat cggccgaggg  
 180  
 gcaggcctgc agttggagcc gtgcgtgggt gtcccgcgag aggagcgtgt tggcagacta  
 240  
 tggggctcgt cggaggacga ggatgtgagt ggcgatggct ttgcgcgact gggcgatttc  
 300  
 caccggcgca tgggtgctcca gatcgtccag ggcgatgatca  
 340

<210> 600  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 600  
 Met Pro Trp Thr Ile Trp Ser Thr Ile Ala Gly Trp Asn Thr Pro Ser  
 1 5 10 15  
 Arg Ala Lys Pro Ser Pro Leu Thr Ser Ser Ser Asp Glu Pro His  
 20 25 30  
 Ser Leu Pro Thr Arg Ser Ser Arg Gly Thr Pro Thr His Gly Ser Asn  
 35 40 45  
 Cys Arg Pro Ala Pro Arg Pro Ile Gly His Gly Leu Gln Val Gln Gly  
 50 55 60  
 Met Arg Pro Gly Lys His Ala Trp Ala Lys Arg Cys Arg Leu Arg Cys  
 65 70 75 80  
 Thr Ala Thr Pro Ser Thr Cys Ala Met Thr Pro Asn Lys Arg Ser Asp  
 85 90 95  
 Thr Thr Glu Arg Ser His His Asp Val Lys Ser Arg Glu Ala Arg  
 100 105 110

<210> 601  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 601  
 gccggcgcca ggcacatctc gctcaacgtc ggcgtgcgag gctgacttc gcgtctttct  
 60  
 ccgcgtccca ccattttgat ggacggcgtc ccgctggcgg tcgcgcctta cggccagcgg  
 120  
 cagctgtcga tggccccgct gtctatcggt aatctgcaat cgggtggacgt ggtgcgcggc  
 180  
 ggcggcgagg tgcgctacgg gccgcagaac gtcggcgagg tgatcaactt cgttaccoga  
 240

gacattccca aaacgtttgg cgggtgccgcc agcgtacaaa cccaggggtgc cagccacggc  
 300  
 ggctgaaga cctgaccag cgctccgtg ggcggcaccg cagacaacgg cctcggcgcc  
 360  
 gagctgctct actccggcct gcacggccag ggctaccgag acaacaacga caacaccgac  
 420  
 n  
 421

<210> 602

<211> 140

<212> PRT

<213> Homo sapiens

<400> 602

Ala	Gly	Gly	Ser	Asp	Ile	Ser	Leu	Asn	Val	Gly	Val	Arg	Gly	Leu	Thr
1			5					10					15		
Ser	Arg	Leu	Ser	Pro	Arg	Ser	Thr	Ile	Leu	Met	Asp	Gly	Val	Pro	Leu
		20						25				30			
Ala	Val	Ala	Pro	Tyr	Gly	Gln	Pro	Gln	Leu	Ser	Met	Ala	Pro	Leu	Ser
	35					40					45				
Ile	Gly	Asn	Leu	Gln	Ser	Val	Asp	Val	Val	Arg	Gly	Gly	Gly	Ala	Val
	50				55					60					
Arg	Tyr	Gly	Pro	Gln	Asn	Val	Gly	Gly	Val	Ile	Asn	Phe	Val	Thr	Arg
65				70					75					80	
Asp	Ile	Pro	Lys	Thr	Phe	Gly	Gly	Ala	Ala	Ser	Val	Gln	Thr	Gln	Gly
			85					90					95		
Ala	Ser	His	Gly	Gly	Leu	Lys	Thr	Leu	Thr	Ser	Ala	Ser	Val	Gly	Gly
		100						105					110		
Thr	Ala	Asp	Asn	Gly	Leu	Gly	Ala	Glu	Leu	Leu	Tyr	Ser	Gly	Leu	His
	115					120						125			
Gly	Gln	Gly	Tyr	Arg	Asp	Asn	Asn	Asp	Asn	Thr	Asp				
	130					135					140				

<210> 603

<211> 309

<212> DNA

<213> Homo sapiens

<400> 603

nagggcggca tgcacgaaag cttgcgcaaa cgctcgctgg aaggcttgga caagatcggc  
 60  
 ttgcacggcc tggccatcgg cggctctgtcg gtgggcgagc ccaagcacga gatgatcaag  
 120  
 gtgctggatt acctgccggg cctgatgccg gctgacaaac ctcgttacct tatgggcgtt  
 180  
 ggcaaaccgg aagacctcgt agaggggtgtg cgccgcggtg tggacatgtt cgattgcgtg  
 240  
 atgccaaacc gtaatgcccg caatgggcat ctgttcacg atacaggcgt gctgaagatc  
 300  
 cgtaacgcg  
 309

<210> 604

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 604

```

Xaa Gly Gly Met His Glu Ser Leu Arg Lys Arg Ser Leu Glu Gly Leu
 1           5           10           15
Asp Lys Ile Gly Phe Asp Gly Leu Ala Ile Gly Gly Leu Ser Val Gly
          20           25           30
Glu Pro Lys His Glu Met Ile Lys Val Leu Asp Tyr Leu Pro Gly Leu
          35           40           45
Met Pro Ala Asp Lys Pro Arg Tyr Leu Met Gly Val Gly Lys Pro Glu
          50           55           60
Asp Leu Val Glu Gly Val Arg Arg Gly Val Asp Met Phe Asp Cys Val
65           70           75           80
Met Pro Thr Arg Asn Ala Arg Asn Gly His Leu Phe Ile Asp Thr Gly
          85           90           95
Val Leu Lys Ile Arg Asn Ala
          100

```

&lt;210&gt; 605

&lt;211&gt; 428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 605

```

acgcgttcac gatagggtag ttgcctatTTT caacgcggTc ggtatTTTcc tgcacaacaa
60
actggcccaa ggctgggcta tagtcaggTg catagtactT ggtgaagtag cgtacgtccg
120
caccacatc acatttcagt accttggtta tcttcaatcg gaaaaaaga ttggagtaaa
180
tgTTgagTTT tggtaatggc aacgccgTTT gactggaaga gTTTtggaaG gtaatgaccg
240
attcccagTg caaaggTccc catgctacat cctgcgacaa tgaggccgTT agcacgTTta
300
ttgcctcgct gcttTgcga acgccaacct ctgtaccgat acgctgatac tgattgTTga
360
tggtataggc ttgcgccagg taggtataat tggTcaattc gtccatggca atgcgcagTg
420
aagtcttg
428

```

&lt;210&gt; 606

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 606

```

Met Asp Glu Leu Thr Asn Tyr Thr Tyr Leu Ala Gln Ala Tyr Thr Ile
 1           5           10           15
Asn Asn Gln Tyr Gln Arg Ile Gly Thr Glu Val Gly Val Arg Gln Ser
          20           25           30
Ser Glu Ala Ile Asn Val Leu Thr Ala Ser Leu Ser Gln Asp Val Ala

```

```

      35              40              45
Trp Gly Pro Leu His Trp Glu Ser Val Ile Thr Phe Gln Asn Ser Ser
  50              55              60
Ser Gln Thr Ala Leu Pro Leu Pro Lys Leu Asn Ile Tyr Ser Asn Leu
  65              70              75              80
Phe Phe Arg Leu Lys Ile Ala Lys Val Leu Lys Cys Asp Val Gly Ala
      85              90              95
Asp Val Arg Tyr Phe Thr Lys Tyr Tyr Ala Pro Asp Tyr Ser Pro Ala
      100              105              110
Leu Gly Gln Phe Val Val Gln Glu Asn Thr Asp Arg Val Glu Ile Gly
      115              120              125
Asn Tyr Pro Ile Val Asn Ala
      130              135

```

<210> 607  
 <211> 366  
 <212> DNA  
 <213> Homo sapiens

```

<400> 607
gatcacgatg aattgtgggc gtacacgtac gagaatgtga tggcgctaaa cttgccgcct
  60
gacattgtgt gtaaaggatt ctttagaaaa ttggaaaacg tagtgaccgg agtcaatttg
  120
gttttcaacg gcaaacatta tcaaattgta aagaaagagg atgacctatt caaattgacc
  180
aaaagcaatt gttacaagtt gagcaacata aaatttaaca attggaaata cttgtacttg
  240
acaacgcacg gtgtgtacaa cgtgttcacc aacagctttc attcgagctg tccatttttg
  300
ttgggcacca cgttgccgca gacattcaag aagccaccg acgaaaagta tttgcccgag
  360
gacgcg
  366

```

<210> 608  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

```

<400> 608
Asp His Asp Glu Leu Trp Ala Tyr Thr Tyr Glu Asn Val Met Ala Leu
  1              5              10              15
Asn Leu Pro Pro Asp Ile Val Cys Lys Gly Phe Phe Arg Lys Leu Glu
      20              25              30
Asn Val Val Thr Gly Val Asn Leu Val Phe Asn Gly Lys His Tyr Gln
      35              40              45
Ile Val Lys Lys Glu Asp Asp Leu Phe Lys Leu Thr Lys Ser Asn Cys
      50              55              60
Tyr Lys Leu Ser Asn Ile Lys Phe Asn Asn Trp Lys Tyr Leu Tyr Leu
  65              70              75              80
Thr Thr His Gly Val Tyr Asn Val Phe Thr Asn Ser Phe His Ser Ser
      85              90              95
Cys Pro Phe Leu Leu Gly Thr Thr Leu Pro Gln Thr Phe Lys Lys Pro

```

100 105 110  
 Thr Asp Glu Lys Tyr Leu Pro Glu Asp Ala  
 115 120

<210> 609  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 609  
 nacgcgttat gacacggcct cctccaaggt cagtgtcatc gagtcacgta actcgtcggg  
 60  
 tgggtcgggtt ggaacgagtc cgtcatgagc ccggtcgcca tggacgactc cagcagtcgg  
 120  
 taccagcctt ggaagcagga cccccaagcg acggaatcgc cggtttccaa gtcgtcgccc  
 180  
 ccgaagcctc aaacttcccc cgccccgtac gccgggcccgg ctccgaagac accggccaca  
 240  
 cctggaccat ctggggcggg ggcgcgcggg tgggtggggc ggggtggagcc g  
 291

<210> 610  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 610  
 Met Ser Pro Val Ala Met Asp Asp Ser Ser Ser Pro Tyr Pro Ala Trp  
 1 5 10 15  
 Lys Gln Asp Pro His Ala Thr Glu Ser Pro Ala Ser Lys Ser Ser Pro  
 20 25 30  
 Pro Lys Pro Gln Thr Ser Pro Ala Pro Tyr Ala Gly Pro Ala Pro Lys  
 35 40 45  
 Thr Pro Ala Thr Pro Gly Pro Ser Gly Ala Gly Ala Pro Pro Trp Trp  
 50 55 60  
 Trp Arg Val Glu Pro  
 65

<210> 611  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 611  
 nnnatcttgt gtcgattttc ggtcgcatac actatggggg agtattgtat aatgcggcgg  
 60  
 tgtaccaag tagagaggtg ttcatgcca cacagtccgg aagaaaagaa gcaagcactg  
 120  
 acgcgcatca ggcgcatcaa aggtcaggta gcgactcttg agcaagcgct tgatgcagg  
 180  
 gcgaaatgtc ctgcaattct tcagcagctt gcggccgttc gtggcgagc caacggattg  
 240  
 atggcaacgg ttctggagag ctatctgcgg gaagagtttc ccagtagcga aatcaggagc  
 300



gattcgaga acaagtcac tgacgagacc atctctatcg tccgctccta tctgcggtag  
 360  
 aggcaccagg gtgtcctcgg tgagggcaaa ttt  
 393

<210> 612  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 612  
 Xaa Ile Leu Cys Arg Phe Ser Val Ala Tyr Thr Met Gly Glu Tyr Cys  
 1 5 10 15  
 Ile Met Arg Arg Cys Thr Gln Val Glu Arg Cys Ser Met Pro His Ser  
 20 25 30  
 Pro Glu Glu Lys Lys Gln Ala Leu Thr Arg Ile Arg Arg Ile Lys Gly  
 35 40 45  
 Gln Val Ala Thr Leu Glu Gln Ala Leu Asp Ala Gly Ala Lys Cys Pro  
 50 55 60  
 Ala Ile Leu Gln Gln Leu Ala Ala Val Arg Gly Ala Val Asn Gly Leu  
 65 70 75 80  
 Met Ala Thr Val Leu Glu Ser Tyr Leu Arg Glu Glu Phe Pro Ser Ser  
 85 90 95  
 Glu Ile Arg Ser Asp Ser Gln Asn Lys Ser Ile Asp Glu Thr Ile Ser  
 100 105 110  
 Ile Val Arg Ser Tyr Leu Arg  
 115

<210> 613  
 <211> 567  
 <212> DNA  
 <213> Homo sapiens

<400> 613  
 gaaaatgctc ctggcgccctc agggaaggctc cttctcaaag aaaaggatgg ggctgaatcg  
 60  
 ctggaaacgg ttcacaagga agccgagtc caagcctact tttggctcctg acagtgtgga  
 120  
 acactggata aagagagtgg agaaagcctc agagtgtgca gtgtcaaagt cattttttac  
 180  
 tagaaattca gatttaccta gaagtcctcg gggccaaatc acagatttga aaacatctga  
 240  
 gcaaatagag gatcatgatg aaatctatgc agaagctcag gagctgggtca atgactgggt  
 300  
 agacacaaaa cttaagcaag aattagcaag tgaggaagaa ggtgatgcta aaaacactgt  
 360  
 gtcaagtgtc actattatgc cggaagccaa tggccatttg aaatatgaca agtttgatga  
 420  
 tttatgtggc tatttggagg aagaagagga aagtaccacc gttcaaaaat ttatagacca  
 480  
 tctgtcccat aaaaatgtgg tagattctgc aatgatggaa gatcttggaa ggaaggaaaa  
 540  
 ccaagacaag aagcagcaga aggatcc  
 567

<210> 614  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 614  
 Met Leu Leu Ala Pro Gln Gly Arg Ser Phe Ser Lys Lys Arg Met Gly  
 1 5 10 15  
 Leu Asn Arg Trp Lys Arg Phe Thr Arg Lys Pro Ser Pro Lys Pro Thr  
 20 25 30  
 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala  
 35 40 45  
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu  
 50 55 60  
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln  
 65 70 75 80  
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn  
 85 90 95  
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu  
 100 105 110  
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala  
 115 120 125  
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu  
 130 135 140  
 Glu Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu  
 145 150 155 160  
 Leu His Lys Asn Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg  
 165 170 175  
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp  
 180 185

<210> 615  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 615  
 nnacgcgtgc tgcctaagt gacggattcc atgtcgggtc gagtcgggtc ggggccgatg  
 60  
 ggccatgaac gggccctagc gagggccgga ctcggccccc tggccggatg cgacgaggcg  
 120  
 gggcggggag cgtgtgcagg gccattggtg gccgcagctg tcattcttga tgatcgcaga  
 180  
 tccggcagga ttgcggggct agcagattcc aagacactat ctgcggccaa gagagaggcc  
 240  
 ctgtttaacg tcatcatgga taaagctttg gcagtgtcgt ggttacgtgt agaagccgac  
 300  
 gaatcgcgtc ggttggggat gcaggaggca gatatcagcg gcttgaggcg tgccgtggtg  
 360  
 aggctgggag ttgaaccggg ctacgtgctg tcggacgggt tcccggtcga cggactgacg  
 420  
 gttcccgatc tggaatgtg gaagggcgat tcagtgtgtg cgtgtgtggc agctgcctcc  
 480

atcgtggcca aagtggccag ggatecgcac atgategcta tggacgccga gattcctggt  
 540  
 tacgattttg cgggtgcacaa ggggtacgcg acagccttac accagcgctcg tctgaaggag  
 600  
 ttaggaccgt ctcgtcagca ccggatgagc tacgccaatg tgcgacgagc ggctaggctt  
 660  
 cattcatcat gagtgccgaa gatct  
 685

<210> 616

<211> 213

<212> PRT

<213> Homo sapiens

<400> 616

Met	Ser	Val	Arg	Val	Gly	Ser	Gly	Pro	Met	Gly	His	Glu	Arg	Ala	Leu
1				5				10						15	
Ala	Arg	Ala	Gly	Leu	Gly	Pro	Val	Ala	Gly	Cys	Asp	Glu	Ala	Gly	Arg
		20						25					30		
Gly	Ala	Cys	Ala	Gly	Pro	Leu	Val	Ala	Ala	Ala	Val	Ile	Leu	Asp	Asp
		35					40						45		
Arg	Arg	Ser	Gly	Arg	Ile	Ala	Gly	Leu	Ala	Asp	Ser	Lys	Thr	Leu	Ser
		50				55					60				
Ala	Ala	Lys	Arg	Glu	Ala	Leu	Phe	Asn	Val	Ile	Met	Asp	Lys	Ala	Leu
65					70					75				80	
Ala	Val	Ser	Trp	Val	Arg	Val	Glu	Ala	Asp	Glu	Cys	Asp	Arg	Leu	Gly
			85						90					95	
Met	Gln	Glu	Ala	Asp	Ile	Ser	Gly	Leu	Arg	Arg	Ala	Val	Val	Arg	Leu
			100					105						110	
Gly	Val	Glu	Pro	Gly	Tyr	Val	Leu	Ser	Asp	Gly	Phe	Pro	Val	Asp	Gly
		115					120						125		
Leu	Thr	Val	Pro	Asp	Leu	Gly	Met	Trp	Lys	Gly	Asp	Ser	Val	Cys	Ala
		130				135						140			
Cys	Val	Ala	Ala	Ala	Ser	Ile	Val	Ala	Lys	Val	Ala	Arg	Asp	Arg	Ile
145					150					155				160	
Met	Ile	Ala	Met	Asp	Ala	Glu	Ile	Pro	Gly	Tyr	Asp	Phe	Ala	Val	His
			165						170					175	
Lys	Gly	Tyr	Ala	Thr	Ala	Leu	His	Gln	Arg	Arg	Leu	Lys	Glu	Leu	Gly
		180						185						190	
Pro	Ser	Arg	Gln	His	Arg	Met	Ser	Tyr	Ala	Asn	Val	Arg	Arg	Ala	Ala
		195					200							205	
Arg	Leu	His	Ser	Ser											
		210													

<210> 617

<211> 337

<212> DNA

<213> Homo sapiens

<400> 617

nncacctgtt tggctcgggg cactcgcgga tcatggctga ggaaatgtgg ccgcgctacg  
 60  
 gctcgtttcc cggcttcaac cccatcgctg agctgtcgct gtcgttccac aacctcgctg  
 120

tcggcgccaa cggccagcgc caggccatgt tcctcgaaaa cgtttcgggc cttcccggag  
 180  
 cgaatcctcc gaaacttcga cctgtcccaa caagactctg cactcgtgat ttcacaaagc  
 240  
 gctgcaacgt cgtgccaatc gagatggccg aggagtcca gcgtcgccgc gtcgcgctcg  
 300  
 tctcgatcat ctcgctggcg cactcgcagg cgtcgac  
 337

<210> 618

<211> 112

<212> PRT

<213> Homo sapiens

<400> 618

Xaa	Thr	Cys	Leu	Ala	Arg	Gly	Thr	Arg	Gly	Ser	Trp	Ser	Arg	Lys	Cys
1				5					10					15	
Gly	Arg	Ala	Thr	Ala	Arg	Phe	Pro	Ala	Ser	Thr	Pro	Ser	Ser	Ser	Cys
			20					25					30		
Arg	Cys	Arg	Ser	Thr	Thr	Ser	Ser	Ser	Ala	Pro	Thr	Ala	Ser	Ala	Arg
		35					40					45			
Pro	Cys	Ser	Ser	Lys	Thr	Phe	Pro	Ala	Phe	Pro	Glu	Arg	Ile	Leu	Arg
	50					55					60				
Asn	Phe	Asp	Leu	Ser	Gln	Gln	Asp	Ser	Ala	Leu	Val	Ile	Ser	Ser	Ser
65					70					75				80	
Ala	Ala	Thr	Ser	Cys	Gln	Ser	Arg	Trp	Pro	Arg	Ser	Ser	Ser	Val	Ala
				85					90					95	
Ala	Ser	Ala	Ser	Ser	Arg	Ser	Ser	Arg	Trp	Arg	Thr	Arg	Arg	Arg	Arg
			100					105						110	

<210> 619

<211> 425

<212> DNA

<213> Homo sapiens

<400> 619

acgcgttttt tatgccgata ttatgctcta acctagaaac aatatcagct acaaacctaa  
 60  
 tagctataag ataatttcg aaagcatcaa taggagtttt gatcatttcc gcatacctaa  
 120  
 gttttatagc atctttgtca gaaggcaaacc ctgccaaacc agatgaatcg atgccactct  
 180  
 caaacttgct caaatgttca attaaatcat ccaagttgtg gccatgctta ccgcttccag  
 240  
 attttgaatg aatcattact ttaattgatt ttccaatcgc taaatggaat tcccagcaag  
 300  
 caatagaagc ccgctcattt ttaaagctca gtatgtcact aatgcctttt tcgaagtggc  
 360  
 tccatattcc ctgcgccata ttagaagctg actggttgga atggcttgcc atgttcaaat  
 420  
 ctaga  
 425

<210> 620

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 620

```

Met Ala Ser His Ser Asn Gln Ser Ala Ser Asn Met Ala Gln Gly Ile
 1           5           10           15
Trp Ser His Phe Glu Lys Gly Ile Ser Asp Ile Leu Ser Phe Lys Asn
 20           25           30
Glu Arg Ala Ser Ile Ala Cys Trp Glu Phe His Leu Ala Ile Glu Lys
 35           40           45
Ser Ile Lys Val Met Ile His Ser Lys Ser Gly Ser Gly Lys His Gly
 50           55           60
His Asn Leu Asp Asp Leu Ile Glu His Leu Ser Lys Phe Glu Ser Gly
 65           70           75           80
Ile Asp Ser Ser Gly Leu Ala Gly Leu Pro Ser Asp Lys Asp Ala Ile
 85           90           95
Lys Leu Arg Tyr Ala Glu Met Ile Lys Thr Pro Ile Asp Ala Phe Glu
100           105           110
Tyr Tyr Leu Ile Ala Ile Arg Phe Val Ala Asp Ile Val Ser Arg Leu
115           120           125
Glu His Lys Ile Gly Ile Lys Asn Ala
130           135

```

&lt;210&gt; 621

&lt;211&gt; 453

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 621

```

cccggaagg gagcatctt gacgaatatg tccttggtggt ggttcgacca attggccgac
60
atcgctcgata accatctcgt gagcgtggat gtccccgcgg aggtcgcagg gcgcgccatg
120
gtcgttgagg aactcgacat gtccccggtc gaatgcgtcg tgcggggcta cctcaccggt
180
tcagggtggg ccgaatatca ggcgaaccag gccgtgtgcg gaatccgct tcccagggg
240
ctgcagaatg ggtccccggt cgaagagccc attttcaccc cggcaattaa ggccccgcag
300
ggagaacatg acgagaacat cgactatcta cgcttggtag aactcgtcgg tccngatgn
360
tcagcgcagc tgcattgacct ttcgctgcgg gtctaccagc gtgcagagga gatcgctcgg
420
aagcgaggca tcctcctggc ggataccaag ctt
453

```

&lt;210&gt; 622

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 622

```

Pro Gly Lys Gly Ala Ile Leu Thr Asn Met Ser Leu Trp Trp Phe Asp

```

```

      1           5           10           15
Gln Leu Ala Asp Ile Val Asp Asn His Leu Val Ser Val Asp Val Pro
      20           25           30
Ala Glu Val Ala Gly Arg Ala Met Val Val Glu Glu Leu Asp Met Phe
      35           40           45
Pro Val Glu Cys Val Val Arg Gly Tyr Leu Thr Gly Ser Gly Trp Ala
      50           55           60
Glu Tyr Gln Arg Asn Gln Ala Val Cys Gly Ile Arg Leu Pro Glu Gly
65           70           75           80
Leu Gln Asn Gly Ser Arg Leu Glu Glu Pro Ile Phe Thr Pro Ala Ile
      85           90           95
Lys Ala Pro Gln Gly Glu His Asp Glu Asn Ile Asp Tyr Leu Arg Leu
      100          105          110
Val Glu Leu Val Gly Pro Xaa Xaa Ser Ala Gln Leu His Asp Leu Ser
      115          120          125
Leu Arg Val Tyr Gln Arg Ala Glu Glu Ile Ala Arg Lys Arg Gly Ile
      130          135          140
Leu Leu Ala Asp Thr Lys Leu
145          150

```

&lt;210&gt; 623

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 623

```

acgcgtccag tatgtccacg gaggacatgc ttgacctcga ctggaacgtc tcctactacg
60
cgaggaacta tcaggccgcg caatcagttg tggcgaaatt cgacgcgggc accattgccc
120
aagccgaaga cctgccacct gacgacaccc acacgggggc ggaactggta aagagcgtgg
180
tcaacagcat cacctgtgtg tcacccctgt acatcgaaga ttccaccacc atagagatcc
240
aggggctggg actgcactgt gtcaggctct gggcgcttgg gctgctcgcc ctgtcactgc
300
ccagcgcacc catgcgggca caccctcgct acgcgcgata tggcg
345

```

&lt;210&gt; 624

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 624

```

Met Ser Thr Glu Asp Met Leu Asp Leu Asp Ser Asn Val Ser Tyr Tyr
      1           5           10           15
Ala Arg Asn Tyr Gln Ala Ala Gln Ser Val Val Ala Lys Phe Asp Ala
      20           25           30
Gly Thr Ile Ala Gln Ala Glu Asp Leu Pro Pro Asp Asp Thr His Thr
      35           40           45
Gly Ala Glu Leu Val Lys Ser Val Val Asn Ser Ile Thr Cys Val Ser
      50           55           60
Pro Leu Tyr Ile Glu Asp Phe Thr Thr Ile Glu Ile Gln Gly Leu Gly

```



cgcgagact gaggtcctga caagcgataa catttctgat aaagaccga tcttactgca  
120  
atctctagcg tctctttttt tgggtgctgt ggtttctcca gacctcggt cctctcgatt  
180  
gtctctctgc cttcttattt cttttttttt tttttaaaca aaaaacaaca cccctcccc  
240  
tctccaccc ggcaccgggc acatccttgc tctatttctt ttctctttct ctctctctct  
300  
ctctctctct cttttttaat aagggtggg gagggaaagg ggggggatgc aggaagacc  
360  
ttttctctc cccccgca taatccaaga tcaactctgc aaacaacaga agacggttca  
420  
tggtttggc cgccgcgcca ccatcttctg ggctgcgag ggtgttcttg acgattaatc  
480  
aacagatgta cagatcagct ctcaaatgt cttctgtgtc ttctgagcgt cttctaagac  
540  
aattgcatta gcctcctgct agttgactaa tagaattaat aattgtaaaa agcactctaa  
600  
agccacatgc cttatgaagt caatgctggg tatgatttta caaatatggt ccggaanaag  
660  
aaccctctc tgagaaacgt tgcaagtga ggcgagggcc agatcctgga gcctataggt  
720  
acagaaagca aggtatctgg aaagaacaaa gaattttctg cagatcagat gtcagaaaat  
780  
acggatcaga gtgatgctgc agaactaat cataaggagg aacatagctt gcatgttcaa  
840  
gatccatctt ctagcagtaa gaaggacttg aaaagcgag ttctgagtga gaaggctggc  
900  
ttcaattatg aaagccccag taagggagga aactttccct cctttccgca tgatgaggtg  
960  
acagacagaa atatgttggc tttctcatct ccagctgctg ggggagtctg tgagcccttg  
1020  
aagtctccgc aaagagcaga ggcagatgac cctcaagata tggcctgcac cccctcaggg  
1080  
gactcactgg agacaaagga agatcagaag atgtcaccaa aggctacaga ggaaacaggg  
1140  
caagcacaga gtggtcaagc caattgtcaa ggtttgagcc cagtttcagt ggcctcaaaa  
1200  
aaccacaag tgcttcaga tgggggtgta agactgaata aatccaaaac tgacttactg  
1260  
gtgaatgaca acccagaccc ggcacctctg tctccagagc ttcaggactt taaatgcaat  
1320  
atctgtggat atggttacta cggcaacgac cccacagatc tgattaagca cttccgaaag  
1380  
tatcacttag gactgcataa ccgcaccagg caagatgctg agctggacag caaatcttg  
1440  
gcccttcata acatggtgca gtccagccat tccaaagact tccagaaggt caaccgttct  
1500  
gtgttttctg gtgtgctgca ggacatcaat tcttcaaggc ctgttttact aaatgggacc  
1560  
tatgatgtgc aggtgacttc aggtggaaca ttcattggca ttggacggaa aacaccagat  
1620  
tgccaaggga acaccaagta tttccgctgt aaattctgca atttactta tatgggcaac  
1680



tcattccaccg aattagaaca acattttctt cagactcacc caaacaaaat aaaagcttct  
1740  
ctccccctct ctgaggttgc aaaacettca gagaaaaact ctaacaagtc catccctgca  
1800  
cttcaatcca gtgattctgg agacttggga aaatggcagg acaagataac agtcaaagca  
1860  
ggagatgaca ctctgttgg gtactcagtg ccataaagc ccctcgattc ctctagacaa  
1920  
aatggtacag aggccaccag ttactactgg tgtaaatttt gtagtttcag ctgtgagtc  
1980  
tctagctcac ttaaactgct agaacattat ggcaagcagc acggagcagt gcagtcaggc  
2040  
ggccttaatc cagagttaaa tgataagctt tccaggggtc ctgtcattaa tcagaatgat  
2100  
ctagccaaaa gttcagaagg agagacaatg accaagacag acaagagctc gagtgggggt  
2160  
aaaaagaagg acttctccag caagggagcc gaggataata tggtaacgag ctataattgt  
2220  
cagttctgtg acttccgata ttccaaaagc catggccctg atgtaattgt agtggggcca  
2280  
cttctccgtc attatcaaca gctccataac attcacaagt gtaccattaa aactgtcca  
2340  
ttctgtccca gaggactttg cagcccagaa aagcaccttg gagaaattac ttatccgttt  
2400  
gcttgtagaa aaagtaattg ttcccactgt gcactcttgc ttctgcactt gtctcctggg  
2460  
gcggctggaa gctcgcgagt caaacatcag tgccatcagt gttcattcac caccctgac  
2520  
gtagatgtac tctctttca ctatgaaagt gtgcatgagt cccaagcatc ggatgtcaaa  
2580  
caagaagcaa atcacctgca aggatcggat gggcagcagt ctgtcaagga aagcaaagaa  
2640  
cactcatgta ccaaatgtga ttttattacc caagtggag aagagatttc ccgacactac  
2700  
aggagagcac acagctgcta caaatgccgt cagtgcagtt ttacagctgc cgatactcag  
2760  
tcactactgg agcacttcaa cactgttcac tgccaggaac aggacatcac tacagccaac  
2820  
ggcgaagagg acggtcatgc catatccacc atcaaagagg agcccaaat tgacttcagg  
2880  
gtctacaatc tgctaactcc agactctaaa atgggagagc cagtttctga gagtgtggtg  
2940  
aagagagaga agctggaaga gaaggacggg ctcaaagaga aagtttggac cgagagttcc  
3000  
agtgatgacc ttcgcaatgt gacttggaaga ggggcagaca tctgcgggg gagtccgtca  
3060  
tacaccaag caagcctggg gctgctgacg cctgtgtctg gcaccaaga gcagacaaag  
3120  
actctaaggg atagtcccaa tgtggaggcc gcccatctgg cgcgacctat ttatggcttg  
3180  
gctgtggaaa ccaagggatt cctgcagggg gcgccagctg gcggagagaa gtctggggcc  
3240  
ctccccagc agtatectgc atcgggagaa aacaagtcca aggatgaatc ccagtcctg  
3300

ttacggaggc gtagaggctc cgggtgttttt tgtgcccaatt gcctgaccac aaagacctct  
3360  
ctctggcgaa agaatgcaaa tggcggatat gtaggcaacg cgtatggcct ctaccagaag  
3420  
cttcactcga ctcccaggcc tttaaaccatc attaaacaaa acaacgggtga gcagattatt  
3480  
aggaggagaa caagaaagcg ccttaacca gaggcacttc aggctgagca gctcaacaaa  
3540  
cagcagaggg gcagcaatga ggagcaagtc aatggaagcc cgtagagag gaggtcagaa  
3600  
gatcatctaa ctgaaagtca ccagagagaa attccactcc ccagcctaag taaatacgaa  
3660  
gccagggtt cattgactaa aagccattct gtcagcagc cagtctggt cagccaaact  
3720  
ctggatatct acaaaaggat gcaacctttg cacattcaga taaaagtcc tcaggaaagt  
3780  
actggagatc caggaaatag tcatccgta tetgaaggga aaggaagttc tgagagaggc  
3840  
agtcctatag aaaagtacat gagacctgcy aaacaccaa attattcacc accaggcagc  
3900  
cctattgaaa agtaccagta ccacttttt ggacttccct ttgtacataa tgacttccag  
3960  
agtgaagctg attggctgcy gttctggagt aaatataagc tctccgttcc tgggaatccg  
4020  
cactacttga gtcacgtgcc tggcctacca aatccttgc aaaactatgt gccttatccc  
4080  
accttcaatc tgctctctca tttttcagct gttggatcag acaatgacat tctctagat  
4140  
ttggcgatca agcattccag acctgggcca actgcaaacy gtgcctcaa ggagaaaacy  
4200  
aaggcaccac caaatgtaaa aaatgaaggt ccttgaatg tagtaaaaac agagaaagtt  
4260  
gatagaagta ctcaagatga actttcaaca aaatgtgtgc actgtggcat tgtctttctg  
4320  
gatgaagtga tgtatgcttt gcatatgagt tgccatggtg acagtggacc tttccagtgc  
4380  
agcatatgcc agcatctttg cacggacaaa tatgacttca caacacatat ccagaggggc  
4440  
ctgcatagga acaatgcaca agtggaaaaa aatggaaaac cttaaagatg aaaccttagc  
4500  
acttagcaca attaaataga aataggtttt ctgatggga attcaatagc ttgtaatgac  
4560  
ttatgaagac ctattaaaaa aatacttcat agagcctgcc ttatccaaca tgaaattccc  
4620  
ttcttttgtt attctttctt ttgatgagta ggttaccaag attaaaaagt gagataaatg  
4680  
gtcaatgaga aagaatggaa gatggtaaac aatcactttt taaaacctgt taagtcaaaa  
4740  
ccatcttggc taatatgtac tggggaaata atccataaga gatatcacca gactagaatt  
4800  
aatatattta taaagaaaga gacaaaaact gtctagaatt tgaaagggtt tacatattat  
4860  
tatactaaag cagtactgga ctggccattg gaccatttgt tccaaaaccc ataaattggt  
4920

gcctaaattt ataatgatca tgaaacccta ggcagaggag gagaaattga aggtccaggg  
4980  
caatgaaaga aaaatggcgc cctctcaatt tagtcttctc tcattggcca tgtttcagat  
5040  
tttgacctag aaatgcgagc tgtggttagg cttggttaga gtgcagcaag caacatgaca  
5100  
gatggtggca cgctgttttt acccagccct gcctgtacat acacatgcac accctctctg  
5160  
atatttttgt ccttttagatg ttcaaatact cagtagtctt tttgtttgcg gtttagattc  
5220  
atattgtcca cacatgtacc cattttaaaa aacaatgtcc tcgatgcttc tgtagtgatt  
5280  
tcatttttagc caggtatttc tttcttgtgt gtgatgaacc agtatggatt tgcttttcta  
5340  
agcctcctgt tggttactaa tctcacttgg cacattataa ctaaaggaat cccctcaatt  
5400  
caaaagcata gatggatata aatgtcagac cgtgggttta atttgttttag aacacatggc  
5460  
atttcttcac aaggtaacct gctgtattta tttattttct tttgggttaa tataatttcc  
5520  
aaactttgtg gtcaggcagc gtctaagggt acgttaccac agactgacag ttggtatatg  
5580  
taccagccaa tcccttcatt aaatgtatac agatttagtt aagtagcatt aaataggatt  
5640  
cttagaagta tgcctcata gaacttttaa tacttaaggc tttgtaaaaa ctatccatga  
5700  
agggaaagct cctcagcata actgctcagg gaaatagggc taaataactg aacattaaat  
5760  
aattgggtta aggtgctggt agtcgagcct caatgcttgc tacaaggatg tatgtacaag  
5820  
gactgacttt aataatttgc attatattgt cccaaccagt agtttatttt ttgccacgga  
5880  
gatgtagaag atattacaag ctactggatg cactgtcaga ttaacttatt tcattaaaga  
5940  
agttgggaga acaaatagga aaaaaaaaaac ttatttttct agtaaataatt aatgtattac  
6000  
atttcaaata atggtgctg acatattgaa taattatttt ctacagtgtg cgtatgcaac  
6060  
aaagatattc catcatgcat tagagtcagt tctggctctg cctagctggt tacatttgca  
6120  
aatgtagcaa acaaggtaat gaagcaacta tttctattgc agtagatata cttttgtgtg  
6180  
tgtgtgtgtg cattaaagtt gtaaaccggt acatgaaca aatgaaagtt cttgtataa  
6240  
tggtatggaa aacaagaagg aaatgaaat atttttatgc ctacttagga aaaaaaggg  
6300  
agcacttatt cattccaagt actttttttt ttttaatttt taagctctta actcacattg  
6360  
ttatgcttaa gatgataaac atatatectc tttttattgc tttgtctatg tttcatatga  
6420  
aacatttcag aaattatttt gataagtgtt gctggaatct gcaacgctga tttttttttg  
6480  
cattctgtag tcgcatttgc actccatttt tacattaatt cgcagttgct ttgtatcatt  
6540

gttttggttg ggttttggtt ctttttcaca gtgccgggtc ttcgtttctt aaagtggat  
6600  
ggcaggtaga gttcaaccag ttcgtgactg ttgtagcgaa tgaagttaa aaaatgtctt  
6660  
tctgatgttg tgttgtcatt ttcatttttg catttttttg tttgcatatt aaaaaagag  
6720  
aaaagagaaa gcaagagaca gaaatcagga ctaagtcctc tgcttcagtt tcattgttaa  
6780  
cgggccttat tctgatctca cctgtcgcgt agctctaata ttcacataaa ctgaaataaa  
6840  
gaagtggat gaggagcttt gacattcaaa ttatgtgatg taatttatct tccttaggaa  
6900  
ttttgatgga tgcattctca aatgtatagc cagacttgag aggtgacaat taaagatcta  
6960  
aaaaagagag gagattcccc caaacaacaa tatttaattt tcttagtaaa aagaataaca  
7020  
gaatgcatcg tggcaatcct taagcaacat tatctatgtg gactgcttaa atcagcaaaa  
7080  
caccagaagt ttggttaact tgggcaatat gacaagtatt actttttggg caaaactact  
7140  
cattaagcaa tttctctagt gtgtcggaca caaatagggt ctttattttt ggcatgtatg  
7200  
cctttttatt ttcattcaat tttttttttt tctcagacag acatagtagt atcaactagc  
7260  
attggaatat acatatcact attcttgga tatttatggt cagtctactt tttagtaaaa  
7320  
tatttttga tagcgttgac acgatagatc ttattccata cttctttatt attgataatt  
7380  
ttattttcat tttttgcttt cattattata catatttttg tggagaagag gttgggcttt  
7440  
tttgaaagag acaaaaattt attataacac taaacactcc ttttttgaca tattaaagcc  
7500  
tttattccat ctctcaagat atattataaa atttattttt ttaatttaag atttctgaat  
7560  
tattttatct taaattgtga ttttaaacga gctattatgg tacggaactt tttttaatga  
7620  
ggaatttcat gatgatttag gaattttctc tcttggaata ggcttccct gtgatgaaaa  
7680  
tgatgtgcca gctaaaattg tgtgccattt aaaaactgaa aatatttta aattatttgt  
7740  
ctatattcta aattgagctt tggatcaaac tttaggccag gaccagctca tgcgttctca  
7800  
ttcttctttt tctcactctt tctctcatca ctacacctg tattcattct gttgtttggg  
7860  
atagaaaaat cataaagagc caaccatct cagaacgttg tggattgaga gagacactac  
7920  
atgactccaa gtatatgaga aaaggacaga gctctaattg ataactctgt agttcaaaag  
7980  
gaaaagagta tgcccaattc tctctacatg acatattgag atttttttta atcaactttt  
8040  
aagatagtga tgttctgttc taaactgttc tgttttagtg aaggtagatt tttataaaac  
8100  
aagcatgggg attcttttct aaggtaatat taatgagaag ggaaaaagt atctttaaca  
8160

gctctttgtt gaagcctgtg gtagcacatt atgtttataa ttgcacatgt gcacataatc  
8220  
tattatgac caatgcaa acagctccaa aaatattaaa tgtatatata ttttaaaatg  
8280  
cctgaggaaa tacatctttc ttaataaaact gaagagtctc agtatggcta ttaaaataat  
8340  
tattagctc ctgttggtg gctgcaaac atcacaagt gaccggtctt gagacctgtg  
8400  
aactgctgcc ctgtttagta aataaaatta atgcatttct agagggggaa tatctgcat  
8460  
ccagtgggtg aaatgtggag taaagaagct ggtggtctgc ttctgtgctg tatgccagcc  
8520  
ttttgcctta agttgagagg aggtcaactt tagctactgt ctttggttg agagccatgg  
8580  
caaaaaaaaa aaaaaaaaaa aagatcaagt cgtctttggt gagccagtaa ggtgaaagct  
8640  
tgctgactgt ccaaggcaca agagaaaatt gaggaattga aatgcaacct gagtatcaaa  
8700  
ctaaatattc taatcaaagg taggtactgt taggtggaat tctatcagca ggcaactgca  
8760  
aatgagaaga agatagaagg acgcccgtcg ggactttgga gggcattgtt attttccaa  
8820  
agaaagacgg ccaagggcag aggcattgat tctttgcaga gcacttcctt ttggtttttc  
8880  
agtactgttt catagacagt gggctcacat gttcctgata gtgctgcagt tgcttagaaa  
8940  
gcatcccagt taattgcagt aattagaact tctggaatat gctagggcag aagtatgtca  
9000  
agtatgtcac atgaagaaaa tgtgaaattc aagagtaatc cacacgtgag aaactagaca  
9060  
atgtacattc atgtgttctc ttgaaaggaa agggagagct gtaagcttca ctctgtccta  
9120  
caccggagaa aagcaggaat aactttaccg tggaaataat gtttagcttt tatcagagaa  
9180  
aattgtcctt ctagagcata gagtcccaa actcaattct ggttttcccc tgtttttttt  
9240  
ttttttttt ttcccaacat atgaactgca gcatatcact tttcttttt gtgcctcagg  
9300  
ttcctcagct gtaaaattga aaaatatatg tattaataat attattaata ataataatgg  
9360  
taatgtagta cttgtttgta aagcactttg agatccttgg ttgaaaggca ccataggagt  
9420  
gccaaagtatt attatgtggc caaggggggtt atttaaactg tcagttccca aaggccagga  
9480  
aagggtgggg tcatttttct taaagacgag ctgtaaatat caactaggca gccaatagt  
9540  
ttgactatga agatgcaaaa ctattactag gctgataaaa tcatagtctt ttaatggcta  
9600  
ccaataaggc aaatatcaca ataataaacg ccaaattcct tagggcggac tatttgacaa  
9660  
ccacatggaa aactttgggg gaggcattgag gggggaacat ctcaaatgc caatgtaaaa  
9720  
tttaacttac agcaatatc accagcagaa aatgtcttct atatggaatg atttcatgtt  
9780

gctaagaaaa agaattcaat ttgtagtcct gatttgaata ctagaatggt ggctataata  
 9840  
 gttctgttct tacaacacat gaaatttttt cgttttattt tattttgttt tcatagtga  
 9900  
 tgttcatttc tactcacaaa catgttcttg gtgtatttct tatgcaaaca atcttcaggc  
 9960  
 agcaaagatg tctgttacat ctaaacttga ataataaagt tttaccacca gttacacata  
 10020  
 acggcggttg tatggtttat atggattcac tttcatcctt ctagcaatag gaaatacaga  
 10080  
 tcattgtaat atatatatat atatatacag gctctgctga attgaaatgg tgaaatcaaa  
 10140  
 tcaccattct aaaaaattat tacttatatt gataaagcct ggattctctc aacttgtttt  
 10200  
 gctttgcttt ttttctttaa ccaatcaatc tcttactgat agattttgtg taaaagata  
 10260  
 tatactagtt tcttcagaaa gattaacaat aaaaattgtg tttatttcaa aaaaaaaaa  
 10319

&lt;210&gt; 628

&lt;211&gt; 1294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 628

Met	Pro	Tyr	Glu	Val	Asn	Ala	Gly	Tyr	Asp	Phe	Thr	Asn	Met	Val	Arg
1				5					10					15	
Lys	Lys	Asn	Pro	Pro	Leu	Arg	Asn	Val	Ala	Ser	Glu	Gly	Glu	Gly	Gln
		20					25					30			
Ile	Leu	Glu	Pro	Ile	Gly	Thr	Glu	Ser	Lys	Val	Ser	Gly	Lys	Asn	Lys
	35					40					45				
Glu	Phe	Ser	Ala	Asp	Gln	Met	Ser	Glu	Asn	Thr	Asp	Gln	Ser	Asp	Ala
	50				55						60	Glu	Leu	Asn	His
Glu	His	Ser	Leu	His	Val	Gln	Asp	Pro							
65				70				75						80	
Ser	Ser	Ser	Ser	Lys	Lys	Asp	Leu	Lys	Ser	Ala	Val	Leu	Ser	Glu	Lys
			85					90					95		
Ala	Gly	Phe	Asn	Tyr	Glu	Ser	Pro	Ser	Lys	Gly	Gly	Asn	Phe	Pro	Ser
		100					105					110			
Phe	Pro	His	Asp	Glu	Val	Thr	Asp	Arg	Asn	Met	Leu	Ala	Phe	Ser	Ser
	115					120					125				
Pro	Ala	Ala	Gly	Gly	Val	Cys	Glu	Pro	Leu	Lys	Ser	Pro	Gln	Arg	Ala
	130				135					140					
Glu	Ala	Asp	Asp	Pro	Gln	Asp	Met	Ala	Cys	Thr	Pro	Ser	Gly	Asp	Ser
145				150				155					160		
Leu	Glu	Thr	Lys	Glu	Asp	Gln	Lys	Met	Ser	Pro	Lys	Ala	Thr	Glu	Glu
		165					170					175			
Thr	Gly	Gln	Ala	Gln	Ser	Gly	Gln	Ala	Asn	Cys	Gln	Gly	Leu	Ser	Pro
	180					185						190			
Val	Ser	Val	Ala	Ser	Lys	Asn	Pro	Gln	Val	Pro	Ser	Asp	Gly	Gly	Val
	195					200					205				
Arg	Leu	Asn	Lys	Ser	Lys	Thr	Asp	Leu	Leu	Val	Asn	Asp	Asn	Pro	Asp
	210				215					220					
Pro	Ala	Pro	Leu	Ser	Pro	Glu	Leu	Gln	Asp	Phe	Lys	Cys	Asn	Ile	Cys

225                      230                      235                      240  
 Gly Tyr Gly Tyr Tyr Gly Asn Asp Pro Thr Asp Leu Ile Lys His Phe  
                                  245                      250                      255  
 Arg Lys Tyr His Leu Gly Leu His Asn Arg Thr Arg Gln Asp Ala Glu  
                                  260                      265                      270  
 Leu Asp Ser Lys Ile Leu Ala Leu His Asn Met Val Gln Phe Ser His  
                                  275                      280                      285  
 Ser Lys Asp Phe Gln Lys Val Asn Arg Ser Val Phe Ser Gly Val Leu  
                                  290                      295                      300  
 Gln Asp Ile Asn Ser Ser Arg Pro Val Leu Leu Asn Gly Thr Tyr Asp  
 305                                   310                                   315                                   320  
 Val Gln Val Thr Ser Gly Gly Thr Phe Ile Gly Ile Gly Arg Lys Thr  
                                  325                                   330                                   335  
 Pro Asp Cys Gln Gly Asn Thr Lys Tyr Phe Arg Cys Lys Phe Cys Asn  
                                  340                                   345                                   350  
 Phe Thr Tyr Met Gly Asn Ser Ser Thr Glu Leu Glu Gln His Phe Leu  
                                  355                                   360                                   365  
 Gln Thr His Pro Asn Lys Ile Lys Ala Ser Leu Pro Ser Ser Glu Val  
                                  370                                   375                                   380  
 Ala Lys Pro Ser Glu Lys Asn Ser Asn Lys Ser Ile Pro Ala Leu Gln  
 385                                   390                                   395                                   400  
 Ser Ser Asp Ser Gly Asp Leu Gly Lys Trp Gln Asp Lys Ile Thr Val  
                                  405                                   410                                   415  
 Lys Ala Gly Asp Asp Thr Pro Val Gly Tyr Ser Val Pro Ile Lys Pro  
                                  420                                   425                                   430  
 Leu Asp Ser Ser Arg Gln Asn Gly Thr Glu Ala Thr Ser Tyr Tyr Trp  
                                  435                                   440                                   445  
 Cys Lys Phe Cys Ser Phe Ser Cys Glu Ser Ser Ser Ser Leu Lys Leu  
                                  450                                   455                                   460  
 Leu Glu His Tyr Gly Lys Gln His Gly Ala Val Gln Ser Gly Gly Leu  
 465                                   470                                   475                                   480  
 Asn Pro Glu Leu Asn Asp Lys Leu Ser Arg Gly Ser Val Ile Asn Gln  
                                  485                                   490                                   495  
 Asn Asp Leu Ala Lys Ser Ser Glu Gly Thr Met Thr Lys Thr Asp  
                                  500                                   505                                   510  
 Lys Ser Ser Ser Gly Ala Lys Lys Lys Asp Phe Ser Ser Lys Gly Ala  
                                  515                                   520                                   525  
 Glu Asp Asn Met Val Thr Ser Tyr Asn Cys Gln Phe Cys Asp Phe Arg  
                                  530                                   535                                   540  
 Tyr Ser Lys Ser His Gly Pro Asp Val Ile Val Val Gly Pro Leu Leu  
 545                                   550                                   555                                   560  
 Arg His Tyr Gln Gln Leu His Asn Ile His Lys Cys Thr Ile Lys His  
                                  565                                   570                                   575  
 Cys Pro Phe Cys Pro Arg Gly Leu Cys Ser Pro Glu Lys His Leu Gly  
                                  580                                   585                                   590  
 Glu Ile Thr Tyr Pro Phe Ala Cys Arg Lys Ser Asn Cys Ser His Cys  
                                  595                                   600                                   605  
 Ala Leu Leu Leu Leu His Leu Ser Pro Gly Ala Ala Gly Ser Ser Arg  
                                  610                                   615                                   620  
 Val Lys His Gln Cys His Gln Cys Ser Phe Thr Thr Pro Asp Val Asp  
 625                                   630                                   635                                   640  
 Val Leu Leu Phe His Tyr Glu Ser Val His Glu Ser Gln Ala Ser Asp  
                                  645                                   650                                   655  
 Val Lys Gln Glu Ala Asn His Leu Gln Gly Ser Asp Gly Gln Gln Ser

660	665	670
Val Lys Glu Ser Lys Glu His Ser Cys Thr Lys Cys Asp Phe Ile Thr		
675	680	685
Gln Val Glu Glu Glu Ile Ser Arg His Tyr Arg Arg Ala His Ser Cys		
690	695	700
Tyr Lys Cys Arg Gln Cys Ser Phe Thr Ala Ala Asp Thr Gln Ser Leu		
705	710	715
Leu Glu His Phe Asn Thr Val His Cys Gln Glu Gln Asp Ile Thr Thr		
725	730	735
Ala Asn Gly Glu Glu Asp Gly His Ala Ile Ser Thr Ile Lys Glu Glu		
740	745	750
Pro Lys Ile Asp Phe Arg Val Tyr Asn Leu Leu Thr Pro Asp Ser Lys		
755	760	765
Met Gly Glu Pro Val Ser Glu Ser Val Val Lys Arg Glu Lys Leu Glu		
770	775	780
Glu Lys Asp Gly Leu Lys Glu Lys Val Trp Thr Glu Ser Ser Ser Asp		
785	790	795
Asp Leu Arg Asn Val Thr Trp Arg Gly Ala Asp Ile Leu Arg Gly Ser		
805	810	815
Pro Ser Tyr Thr Gln Ala Ser Leu Gly Leu Leu Thr Pro Val Ser Gly		
820	825	830
Thr Gln Glu Gln Thr Lys Thr Leu Arg Asp Ser Pro Asn Val Glu Ala		
835	840	845
Ala His Leu Ala Arg Pro Ile Tyr Gly Leu Ala Val Glu Thr Lys Gly		
850	855	860
Phe Leu Gln Gly Ala Pro Ala Gly Gly Glu Lys Ser Gly Ala Leu Pro		
865	870	875
Gln Gln Tyr Pro Ala Ser Gly Glu Asn Lys Ser Lys Asp Glu Ser Gln		
885	890	895
Ser Leu Leu Arg Arg Arg Gly Ser Gly Val Phe Cys Ala Asn Cys		
900	905	910
Leu Thr Thr Lys Thr Ser Leu Trp Arg Lys Asn Ala Asn Gly Gly Tyr		
915	920	925
Val Cys Asn Ala Tyr Gly Leu Tyr Gln Lys Leu His Ser Thr Pro Arg		
930	935	940
Pro Leu Asn Ile Ile Lys Gln Asn Asn Gly Glu Gln Ile Ile Arg Arg		
945	950	955
Arg Thr Arg Lys Arg Leu Asn Pro Glu Ala Leu Gln Ala Glu Gln Leu		
965	970	975
Asn Lys Gln Gln Arg Gly Ser Asn Glu Glu Gln Val Asn Gly Ser Pro		
980	985	990
Leu Glu Arg Arg Ser Glu Asp His Leu Thr Glu Ser His Gln Arg Glu		
995	1000	1005
Ile Pro Leu Pro Ser Leu Ser Lys Tyr Glu Ala Gln Gly Ser Leu Thr		
1010	1015	1020
Lys Ser His Ser Ala Gln Gln Pro Val Leu Val Ser Gln Thr Leu Asp		
1025	1030	1035
Ile His Lys Arg Met Gln Pro Leu His Ile Gln Ile Lys Ser Pro Gln		
1045	1050	1055
Glu Ser Thr Gly Asp Pro Gly Asn Ser Ser Ser Val Ser Glu Gly Lys		
1060	1065	1070
Gly Ser Ser Glu Arg Gly Ser Pro Ile Glu Lys Tyr Met Arg Pro Ala		
1075	1080	1085
Lys His Pro Asn Tyr Ser Pro Pro Gly Ser Pro Ile Glu Lys Tyr Gln		



1090                      1095                      1100  
 Tyr Pro Leu Phe Gly Leu Pro Phe Val His Asn Asp Phe Gln Ser Glu  
 1105                      1110                      1115                      1120  
 Ala Asp Trp Leu Arg Phe Trp Ser Lys Tyr Lys Leu Ser Val Pro Gly  
                          1125                      1130                      1135  
 Asn Pro His Tyr Leu Ser His Val Pro Gly Leu Pro Asn Pro Cys Gln  
                          1140                      1145                      1150  
 Asn Tyr Val Pro Tyr Pro Thr Phe Asn Leu Pro Pro His Phe Ser Ala  
                          1155                      1160                      1165  
 Val Gly Ser Asp Asn Asp Ile Pro Leu Asp Leu Ala Ile Lys His Ser  
                          1170                      1175                      1180  
 Arg Pro Gly Pro Thr Ala Asn Gly Ala Ser Lys Glu Lys Thr Lys Ala  
 1185                      1190                      1195                      1200  
 Pro Pro Asn Val Lys Asn Glu Gly Pro Leu Asn Val Val Lys Thr Glu  
                          1205                      1210                      1215  
 Lys Val Asp Arg Ser Thr Gln Asp Glu Leu Ser Thr Lys Cys Val His  
                          1220                      1225                      1230  
 Cys Gly Ile Val Phe Leu Asp Glu Val Met Tyr Ala Leu His Met Ser  
                          1235                      1240                      1245  
 Cys His Gly Asp Ser Gly Pro Phe Gln Cys Ser Ile Cys Gln His Leu  
                          1250                      1255                      1260  
 Cys Thr Asp Lys Tyr Asp Phe Thr Thr His Ile Gln Arg Gly Leu His  
 1265                      1270                      1275                      1280  
 Arg Asn Asn Ala Gln Val Glu Lys Asn Gly Lys Pro Lys Glu  
                          1285                      1290

<210> 629  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 629  
 nacgcgttcg ctgaggaggg aaccggtgcc agcaccttcc agctttccga gatctggatt  
 60  
 ggcattctca ttggcgtctt taccttcacg gggtcgctgg tggcctgggg caagctctcg  
 120  
 ggcaaagtcg cttcaaagcc actgacctg ccaggtcgta attggatcaa ccttggctcg  
 180  
 ctggtcgtta tcctgcctg cgggatctgg ttctccaatg tttctgggtg tatcgctgg  
 240  
 ctgccgctgg cgctactgac cctggcctcg ctgttctcg gcttccactt cgtegccgct  
 300  
 atcgggtggc cgcatatgcc agtcgtcatt tcgatgctga acagctactc cggttgggca  
 360  
 gctgccttct ccgatttag ttgcacatc ccggtgctta tcgtcaccgg t  
 411

<210> 630  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 630  
 Xaa Ala Phe Ala Glu Glu Gly Thr Gly Ala Ser Thr Phe Gln Leu Ser

```

      1           5           10           15
Glu Ile Trp Ile Gly Ile Phe Ile Gly Ala Leu Thr Phe Thr Gly Ser
      20           25           30
Leu Val Ala Trp Gly Lys Leu Ser Gly Lys Val Ala Ser Lys Pro Leu
      35           40           45
Thr Leu Pro Gly Arg Asn Trp Ile Asn Leu Gly Leu Leu Val Val Ile
      50           55           60
Ile Ala Cys Gly Ile Trp Phe Ser Asn Val Ser Gly Gly Ile Ala Trp
      65           70           75           80
Leu Pro Leu Ala Leu Leu Thr Leu Ala Ser Leu Phe Leu Gly Phe His
      85           90           95
Phe Val Ala Ala Ile Gly Gly Ala Asp Met Pro Val Val Ile Ser Met
      100          105          110
Leu Asn Ser Tyr Ser Gly Trp Ala Ala Phe Ser Gly Phe Ser Leu
      115          120          125
His Ile Pro Val Leu Ile Val Thr Gly
      130          135

```

&lt;210&gt; 631

&lt;211&gt; 275

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 631

```

gccggccagc gcatggagga ggaggccatg aacggcgacc ggactgagag cgactggcag
60
gggctggtga gcgagtacct ggtgtgtaag aggaagctgg agagtaagaa ggaagcctg
120
ctgatcctct ccaaggagct ggacacctgt caacaggaaa gggaccagta caaactcatg
180
gccaatcagc tccgggagcg ccaccagtca ctgaagaaga agtaccgaga gctgattgat
240
ggagatccat cacttctctc tgaaaaaagg aaaca
275

```

&lt;210&gt; 632

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 632

```

Met Glu Glu Glu Ala Met Asn Gly Asp Arg Thr Glu Ser Asp Trp Gln
      1           5           10           15
Gly Leu Val Ser Glu Tyr Leu Val Cys Lys Arg Lys Leu Glu Ser Lys
      20           25           30
Lys Glu Ala Leu Leu Ile Leu Ser Lys Glu Leu Asp Thr Cys Gln Gln
      35           40           45
Glu Arg Asp Gln Tyr Lys Leu Met Ala Asn Gln Leu Arg Glu Arg His
      50           55           60
Gln Ser Leu Lys Lys Lys Tyr Arg Glu Leu Ile Asp Gly Asp Pro Ser
      65           70           75           80
Leu Pro Pro Glu Lys Arg Lys
      85

```

<210> 633  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 633  
 nnacgcgtgg aagatctgct cgggcgccac cagttgaact acagcatcga atggcgccctg  
 60  
 tcggggccagc cgttcctgac cgcacgcgcg nactggtgg atgcggtggt taacgccctc  
 120  
 gaacactatt ctgagctgac gccacagttg ctgaccaccg ggggcacctc agacggctcg  
 180  
 tttatcgccc agatgggcnc gcaagtgggt gagctggggc cggccaacgc gacgatccat  
 240  
 aaggtcaacg aatgcgtaca cgcagccgac ttgcaactgc tcagccgcat gtaccagcgc  
 300  
 atcatggagc aactggtcgc atgatcacgc cagaaatgct gaccggggcg tcgacagatc  
 360  
 acctggtgcc gctctggtaa accaccggtt gcagcccgcc gccgtaggcg cgttcctcgg  
 420

<210> 634  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 634  
 Xaa Arg Val Glu Asp Leu Leu Gly Arg His Gln Leu Asn Tyr Ser Ile  
 1 5 10 15  
 Glu Trp Arg Leu Ser Gly Gln Pro Phe Leu Thr Ala Arg Ala Xaa Leu  
 20 25 30  
 Val Asp Ala Val Val Asn Ala Val Glu His Tyr Ser Glu Leu Thr Pro  
 35 40 45  
 Gln Leu Leu Thr Thr Gly Gly Thr Ser Asp Gly Arg Phe Ile Ala Gln  
 50 55 60  
 Met Gly Xaa Gln Val Val Glu Leu Gly Pro Val Asn Ala Thr Ile His  
 65 70 75 80  
 Lys Val Asn Glu Cys Val His Ala Ala Asp Leu Gln Leu Leu Ser Arg  
 85 90 95  
 Met Tyr Gln Arg Ile Met Glu Gln Leu Val Ala  
 100 105

<210> 635  
 <211> 6918  
 <212> DNA  
 <213> Homo sapiens

<400> 635  
 ncccccaacc ggcagcccat cggcatcgtg ctcacggtgc tgggagtggg ggtcctggac  
 60  
 ttcagcgccg atgccaccga ggggcccata cgtgcctata tgctggacgt ggtggacagc  
 120  
 gaggagcagg acatggccct caacatccac gccttctctg ccggcctcgg cggagccatc  
 180

ggctacgtgc tgggtgggct ggactggacc cagaccttcc tgggcagctg gttccggacc  
240  
cagaaccagg tgctcttctt ctttgccgcc atcatcttca cgggtgtccgt ggccctgcac  
300  
ctgttcagca tcgacgagga gcagtacagc ccgcagcagg agcgagcgc tgaggagccc  
360  
ggcgccctgg atgggggcca gccgcacggc gtccctgcct tcccagacga ggtacagtgc  
420  
gagcagcagc tggccctgga ctacccggac gtggacatca tgcgcagcaa aagcgactgc  
480  
gcgttgacag tgccggacac cgcgctggac ctggagcccg agctgctgtt cctgcacgac  
540  
atcgagccct ccatcttcca cgacgcctcc taccgcgcca ccccccgcag caccagccag  
600  
gagctcgcca agaccaagct gcccgcctg gccaccttcc tcaaggaagc cgccaaggag  
660  
gacgagacct tgctggataa tcaactgaat gaagctaaag tcccaaacgg aagtggctcc  
720  
cccacaaaag acgccctcgg cggtacacc aggggtggaca cgaagccctc ggccacgtcg  
780  
agctccatgc ggcgggcg gcacgcgttc cgcaggcagg cctccagcac cttctcctac  
840  
tacggcaagc ttgggtccca ctgctaccgc taccggcgcg ccaacgccgt ggtgctgatc  
900  
aagccgtcgc gcagcatgag cgacctgtac gacatgcaga agcggcagcg gcagaccggg  
960  
caccggaacc agagcggggc caccacctcc agcggggaca ccgagagtga ggagggggag  
1020  
ggcgagacca cgggtgcgct gctgtggctc tccatgctga agatgccag ggagctgatg  
1080  
cggtctgtcc tctgccacct cctcaactgg ttctctgtca tcgccgaggc cgtgttctac  
1140  
accgaattca tgggccaggc catcttcgaa ggcgaccca aggccccctc gaactcgacc  
1200  
gcctggcaag cctacaacgc cggggctcaag atgggctgct ggggcctggc catttatgcc  
1260  
gccactggtg ctatttgttc agccctgtta cagaagtact tggacaacta cgacctgagc  
1320  
gtcaggggtga tctacgtgct ggggacgctg ggcttctctg tcggcacagc cgtgatggcc  
1380  
atgtttccca acgtctacgt cgccatggc accatcagca ccatgggcat cgtctccatg  
1440  
agcatctcct actgcccgtc cgccctgctg ggccagtacc atgacatcaa gcagtacatc  
1500  
caccacagcc ccgggaactc caagcgaggg tttggcatag attgtgccat cctgtctcgc  
1560  
caagtgtaca tctcgcagat cctgggtggc tctgcccttg ggggcgtggc cgacgcctg  
1620  
gggactgtcc gcgtcatccc catgggtggc tctgtgggct ctttctctgg cttctgacg  
1680  
gccacattcc tggatgata tcccagcgtg tcagaggagg ccaaggagga gcagaaaggc  
1740  
ctgtcttccc cgttgccggc cgaaggcagg gccggcggga acagcgaaaa gccaccgtg  
1800

ctgaagctca cgcggaagga gggcctgcag ggaccgggtg agacagagtc cgtgggtctga  
1860  
gccgcactcc cgtttacaca cattccagcg ggcgggtggg cgggcgggcg ggcggcgggg  
1920  
ccaggccatg ggcgggagca gagacaccgc ggaaccctgc agatgctgtg gccgaccg  
1980  
cagtgcgggc cagagccctt ccgcccccat agccacaatt cagtagtcgt agggtaggtt  
2040  
tgagctacta agcaaatacc aactaacca ctttttcgat aattaaaaga atcatttgaa  
2100  
atattttttt taattgaaaa agatatttta atttcagctc ttttattctg cagggtgtatt  
2160  
attctgcatg tttttaaatg atataaaaca tttatataga caataagcaa cttagaaaaa  
2220  
ataagatttt gcatttctaa aattataatt gaaaacaaaa tctgacattc tctgctaagt  
2280  
cttatctgaa tgcttcagat aatggtagtg tagtcagtga ctaaaatatt tttatcaaat  
2340  
ttcctctctg tagacgctg cagggtattga cgtctgtcag atctcgtcac attggctggt  
2400  
gccgcagctg ttggagagta tttttcttta tgattatttt agaaaaaaaa ttttcttttc  
2460  
cacaatgtgg ttctcttaga agaatgacgt atcttctttt cctcagcgag ttggacacat  
2520  
tgtgcccgagg gcagccctgt ccttgggcag cgaccgcaca ccaaagctgg gaggaggctg  
2580  
gtccgggggg cctgggcaga agacagtgat ttgcaggggt ggctcccaga caccctgcc  
2640  
agggatgggc tgggcaccac ctggggcgcg agcgtgagct ccagacgagc tctgctgctc  
2700  
gcgtgtgagt gtgtctgcgc ccagccatgt gaccctgctc gtcccgctctg aaggactctc  
2760  
ctaggaggcc aggttgcccc tccagacccc tcccaacgctc agggggaagg aaacgttgac  
2820  
tttcaactga ctttgattcg tctctaaacc atttgctggg gattcctgag agcagagctc  
2880  
ccagcgggcc ctgcctccca agtcccgcgc caaggctacc tcgggtgtgt ggatgtgca  
2940  
gggcctcccc cgcttgcgaa ggggacatgc gtgctggaac ctgtcggaac tccatgcctt  
3000  
cctgcctgctc tcacctgctc gacgtggaa tcgggacagg tgcaaaggga cgcagacgctc  
3060  
tgggacagct aaggcccgctg tcaccggagg gctccgcaca gtcgttctgg tttcaacgaa  
3120  
taagcaaaac tcgggcaagt actgcagcta tttggaaatg ttttccaaac cacagtctct  
3180  
ttagaactaa gcctatttga aacggtcggt gtaggcttac tgagatcagg agacaggag  
3240  
gccccgcaca tcacacagat aaagtcagac aattgtaatt aatacttttg ctgcctcaag  
3300  
ttgtttttta aataaagtac tttgaaatgc atgagaatca tgctgcaata tgatcattct  
3360  
agagcaata tatatatata cgtatatata tttcaagatg aaactaaagc agtttttaaa  
3420

ttaaattactt gaattttctg tgtattttaa ggaacgactg tttaatgtac ttgatgggcc  
3480  
tctgggtcttg ccgtgtctcc tgccgctggt ggcactttgt agattgtgtg tttgtgtccg  
3540  
ggtggcagtt ggttacctgc tcacgcacgg tgtgtctgcc aggccacggt gtcccaggat  
3600  
cgcagagggc tgacttcaag acttcaagaa cattttctgg atgtgtggaa acttgagaat  
3660  
ggccttgtga atctcgtgct tggacagggc aagtccgact actgaaagtg ctgccagctt  
3720  
tgctgcgagc cctccggcca gcgggagccc cgtgggctgg gcaactgtggc ctttcttctc  
3780  
tgggggacgg cacccttggc ttctcactc cggccgggag tccgtggcag ctactctat  
3840  
gcaacttgat cctctagcgg ctttaagact gtagatcccc tctctgagac ctggtgtac  
3900  
ttgtcaggat ctcgaggcgc agtcccgtc ttagctggtt tctccggctt ctgctctga  
3960  
cgactataaa acagttggag gcaagaaagc agcggatgtg ggggtggcagt ggcctgaccc  
4020  
gaatcaagat ccgacccaaa ccacacccaaa tgtgggttca tctgggggcc accccttgcc  
4080  
tgaggcttcc caccctcacc tgaaggccca ggggccggat ccagggtca ccaaagccga  
4140  
ttcctcgcca gctgggagtg cagaagtctc agggcctggc tgcgacttga tttttaggag  
4200  
gaagaggggc ttcgcaacc cctctgaat agtgtgttaa cccttgagat ccagcctcg  
4260  
actaatctga agtaaggaca acaaaggcca ttcagtgcc tccacatggc cttgccacag  
4320  
tcaactgtcag ggtatgaatg tgccggaagc cagtgccagc cagggacagg cgtgactgtt  
4380  
gtgtgctcct cggtagacagg agtcggtggc tgcacacttt gtagactcgt caagctgtca  
4440  
gcacttcagg tgtttgcaag caaagccctt cttagtgtgc aggtcagtgt gcagagccca  
4500  
aatgagggga ccgcaggggc tggggtccag ggtcagtaga gtcggtttct ggagctgcct  
4560  
tctggggagg caggtgtggg tgaccggggc tctggcggtg cgtgtggggc cggcctggcc  
4620  
acagcgggga ccaggtcacg acatcttttg cctcaacccc tcccctgcac tgagattatt  
4680  
tccagattgc actcacttga aaccgtccgt gtcgtcacct tgtgtcttaa ggaagccga  
4740  
gaagaagggc agacgggcag gctgtcttgt ctgcaaagcg ccattgcgcc cgcagcttgt  
4800  
gtgggtcagg ctgcagctcg ggtgtctgtg gcttctaacc ttgtacctca gacggatgca  
4860  
gtaacaaggc ggggctgggg acgccggtca gtgtcaaagg ggaggtgctc tggctgatag  
4920  
ccttgcccga gagggacgag gaggccgtgc ggggtgcccc tggggaagct ggccagccat  
4980  
ccagtgtga ggacgcagct ggagttgggc tcgtggcacc cttggggtgt gggctgtgca  
5040

ggctgggtggc ctgggtgcct ctgcacactg agtggagtgt caggcagggg gtgtcggttg  
5100  
gtcgagtctt gtgtaatgtg cgcagaccag ttaccaaact aggataatgt tggctctcatt  
5160  
tgtgggtggtt ttgttcccta tacaagtcag ctaagtaaag actcttttaa cgagcttccc  
5220  
cttaacacat ggcagaagtt tccaggtgca ggaatgcgag ctggcgggaa ggggcagagg  
5280  
ccgtgagctc tcagctgggc cggcctgcct gtgtccccctt tcctgggtct gtccgcagac  
5340  
tggcatcatg acgttccctg gtggctgaag agctagcttt ggagtgttgt tttctcact  
5400  
ctcaggcagg ggccttagct ggaatcctcc aacctgccac tgaacacgtc agtgctgtgt  
5460  
gctgcctctt ggacacctgc ccttgaaagc ctcaggcccc tgggagaagc actctgtcca  
5520  
gtcctgtccc cgggggggag gcagggccac tgagccctcc tcagatggtt agtggttcc  
5580  
aacagccatc aggagtgttt cttgaatgcc ccaggtgtgg aggacttggc ctgtgaccac  
5640  
ctagaacccc agagctgaac aggaagccgt ccctgcagca acaagagggc tggaagggg  
5700  
agctgcaggc caccctcggc tctccactg ctggggcggg gatgttcggg tgacatgttt  
5760  
gaaaaatact cttaaagata ccaactgttc ctttatatgg ctaatggttt gtgcagccac  
5820  
cagcgatggc ggccccatt agagaccagg ttgttataaa caccaaatac tgctgtccac  
5880  
actagacatt aaccggcttc agaaaagatg gacacctttt cccacgtgtt ttcgcttctt  
5940  
aactttggtc cagcttttagc caccacacag cgtgtgaggg actgctgctg cggagtcagc  
6000  
ctcgtttgtc cctccgctc ccaccagcac gcgcgcttc tgagagacac cagctccctg  
6060  
cctccaagcc tgggtgccaca ggcttgtcgt gagggacccc tgcttcgag agctcctggg  
6120  
ggggttctgc ccttcaccac ctgggagagg tgtcagttca gttccgagtt gaacaaggcc  
6180  
cgtgcacaca gcatgttggg ggcccagccc aaagtctctg tcacctctc atgcaaagcc  
6240  
agccatcacc ctccggccag agctcaaggc ggccccttgg ccagccctc cttgggtcct  
6300  
ccaggaggac tgagaccccc tcttagcggc atcccttgcc ctccacagtg ctgccagggg  
6360  
cacgtcgtc tgtgccgtg actgagacca tcccctggtg acagaatgac ccgtttgtt  
6420  
gaaatgcctc gttgccagag aaactcccca ggcactcgg aacgaaacta tttagttcca  
6480  
ttgtgaactg gccacgggac agctttttat caacttatta agttggagca ctgtaatcgc  
6540  
gcttgctgag ttagcagtgg tggtaagcgt gtgttaaaca cataatgtta cgtttttagg  
6600  
gagagaggc gtaaggaagt gtcgtgtcgc tcatgactct cttctattag ttgggtaaca  
6660

gtggcctcat gtttgtgtct gtgtgtacac agagccctta ggttctgctc tgtttctttg  
 6720  
 ccaggtgaat gtttgtggca tgcgctgctg tccgcgcccc tctgtcctgc gcagggttca  
 6780  
 gctgtgcggc gccctgattt cctccatgca cacagaacct ccttgtgtct gtttctctgt  
 6840  
 tcctctgtgg ctgactcaat aaacttttcc ctctgaaaaa aaaaaaaaaa aaaaaaaaaa  
 6900  
 aaaaaaaaaa aaaaaaag  
 6918

&lt;210&gt; 636

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 636

Xaa	Pro	Asn	Arg	Gln	Pro	Ile	Gly	Ile	Val	Leu	Thr	Val	Leu	Gly	Val
1				5					10					15	
Val	Val	Leu	Asp	Phe	Ser	Ala	Asp	Ala	Thr	Glu	Gly	Pro	Ile	Arg	Ala
		20						25					30		
Tyr	Leu	Leu	Asp	Val	Val	Asp	Ser	Glu	Glu	Gln	Asp	Met	Ala	Leu	Asn
	35						40					45			
Ile	His	Ala	Phe	Ser	Ala	Gly	Leu	Gly	Gly	Ala	Ile	Gly	Tyr	Val	Leu
	50					55				60					
Gly	Gly	Leu	Asp	Trp	Thr	Gln	Thr	Phe	Leu	Gly	Ser	Trp	Phe	Arg	Thr
65					70					75				80	
Gln	Asn	Gln	Val	Leu	Phe	Phe	Phe	Ala	Ala	Ile	Ile	Phe	Thr	Val	Ser
			85					90						95	
Val	Ala	Leu	His	Leu	Phe	Ser	Ile	Asp	Glu	Glu	Gln	Tyr	Ser	Pro	Gln
		100						105					110		
Gln	Glu	Arg	Ser	Ala	Glu	Glu	Pro	Gly	Ala	Leu	Asp	Gly	Gly	Glu	Pro
	115						120					125			
His	Gly	Val	Pro	Ala	Phe	Pro	Asp	Glu	Val	Gln	Ser	Glu	His	Glu	Leu
	130					135					140				
Ala	Leu	Asp	Tyr	Pro	Asp	Val	Asp	Ile	Met	Arg	Ser	Lys	Ser	Asp	Ser
145					150					155				160	
Ala	Leu	His	Val	Pro	Asp	Thr	Ala	Leu	Asp	Leu	Glu	Pro	Glu	Leu	Leu
			165					170						175	
Phe	Leu	His	Asp	Ile	Glu	Pro	Ser	Ile	Phe	His	Asp	Ala	Ser	Tyr	Pro
		180						185					190		
Ala	Thr	Pro	Arg	Ser	Thr	Ser	Gln	Glu	Leu	Ala	Lys	Thr	Lys	Leu	Pro
	195						200					205			
Arg	Leu	Ala	Thr	Phe	Leu	Lys	Glu	Ala	Ala	Lys	Glu	Asp	Glu	Thr	Leu
	210					215					220				
Leu	Asp	Asn	His	Leu	Asn	Glu	Ala	Lys	Val	Pro	Asn	Gly	Ser	Gly	Ser
225					230					235				240	
Pro	Thr	Lys	Asp	Ala	Leu	Gly	Gly	Tyr	Thr	Arg	Val	Asp	Thr	Lys	Pro
			245					250						255	
Ser	Ala	Thr	Ser	Ser	Ser	Met	Arg	Arg	Arg	Arg	His	Ala	Phe	Arg	Arg
		260					265						270		
Gln	Ala	Ser	Ser	Thr	Phe	Ser	Tyr	Gly	Lys	Leu	Gly	Ser	His	Cys	
	275					280					285				
Tyr	Arg	Tyr	Arg	Arg	Ala	Asn	Ala	Val	Val	Leu	Ile	Lys	Pro	Ser	Arg



290 295 300  
 Ser Met Ser Asp Leu Tyr Asp Met Gln Lys Arg Gln Arg Gln His Arg  
 305 310 315 320  
 His Arg Asn Gln Ser Gly Ala Thr Thr Ser Ser Gly Asp Thr Glu Ser  
 325 330 335  
 Glu Glu Gly Glu Gly Glu Thr Thr Val Arg Leu Leu Trp Leu Ser Met  
 340 345 350  
 Leu Lys Met Pro Arg Glu Leu Met Arg Leu Cys Leu Cys His Leu Leu  
 355 360 365  
 Thr Trp Phe Ser Val Ile Ala Glu Ala Val Phe Tyr Thr Asp Phe Met  
 370 375 380  
 Gly Gln Val Ile Phe Glu Gly Asp Pro Lys Ala Pro Ser Asn Ser Thr  
 385 390 395 400  
 Ala Trp Gln Ala Tyr Asn Ala Gly Val Lys Met Gly Cys Trp Gly Leu  
 405 410 415  
 Val Ile Tyr Ala Ala Thr Gly Ala Ile Cys Ser Ala Leu Leu Gln Lys  
 420 425 430  
 Tyr Leu Asp Asn Tyr Asp Leu Ser Val Arg Val Ile Tyr Val Leu Gly  
 435 440 445  
 Thr Leu Gly Phe Ser Val Gly Thr Ala Val Met Ala Met Phe Pro Asn  
 450 455 460  
 Val Tyr Val Ala Met Val Thr Ile Ser Thr Met Gly Ile Val Ser Met  
 465 470 475 480  
 Ser Ile Ser Tyr Cys Pro Tyr Ala Leu Leu Gly Gln Tyr His Asp Ile  
 485 490 495  
 Lys Gln Tyr Ile His His Ser Pro Gly Asn Ser Lys Arg Gly Phe Gly  
 500 505 510  
 Ile Asp Cys Ala Ile Leu Ser Cys Gln Val Tyr Ile Ser Gln Ile Leu  
 515 520 525  
 Val Ala Ser Ala Leu Gly Gly Val Val Asp Ala Val Gly Thr Val Arg  
 530 535 540  
 Val Ile Pro Met Val Ala Ser Val Gly Ser Phe Leu Gly Phe Leu Thr  
 545 550 555 560  
 Ala Thr Phe Leu Val Ile Tyr Pro Asp Val Ser Glu Glu Ala Lys Glu  
 565 570 575  
 Glu Gln Lys Gly Leu Ser Ser Pro Leu Ala Gly Glu Gly Arg Ala Gly  
 580 585 590  
 Gly Asn Ser Glu Lys Pro Thr Val Leu Lys Leu Thr Arg Lys Glu Gly  
 595 600 605  
 Leu Gln Gly Pro Val Glu Thr Glu Ser Val Val  
 610 615

&lt;210&gt; 637

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 637

ngaaaaacag gatgaatccc gtatcattct taagcccgaa aagtactgaa tgtcgtcttc  
 60  
 tctcgtatcg tgatgatctg gaaaggaaaa atcatcgtga ctactacatc acccgctact  
 120  
 acgcaaagac cgtcagttgg caggaaagtt ggttctctgg cccttaatcc atggtgtttt  
 180

tgtaggcctt tattattttt cggaatgggtt cgggtttattg cgattccagt attcctcact  
 240  
 gtgccgaata tcattaatat cggaatccaa gccgcggtgg tggcgattat ggccttcggt  
 300  
 atgaccttcg tcacgtttac ctccggcatt gatttgtctg tgggttcggt cgcagctctt  
 360  
 tcagccatgg  
 370

<210> 638

<211> 99

<212> PRT

<213> Homo sapiens

<400> 638

Met	Ile	Trp	Lys	Gly	Lys	Ile	Ile	Val	Thr	Thr	Thr	Ser	Pro	Ala	Thr
1				5					10					15	
Thr	Gln	Arg	Pro	Ser	Val	Gly	Arg	Lys	Val	Gly	Ser	Trp	Ser	Leu	Asn
			20					25					30		
Pro	Trp	Cys	Phe	Cys	Arg	Pro	Leu	Phe	Phe	Gly	Met	Val	Arg	Phe	
		35					40				45				
Ile	Ala	Ile	Pro	Val	Phe	Leu	Thr	Val	Pro	Asn	Ile	Ile	Asn	Ile	Gly
	50					55				60					
Ile	Gln	Ala	Ala	Val	Val	Ala	Ile	Met	Ala	Phe	Gly	Met	Thr	Phe	Val
65				70					75					80	
Ile	Val	Thr	Ser	Gly	Ile	Asp	Leu	Ser	Val	Gly	Ser	Val	Ala	Ala	Leu
				85				90					95		

Ser Ala Met

<210> 639

<211> 330

<212> DNA

<213> Homo sapiens

<400> 639

nacgcgtcga tgggcaacta catcttcagt cgggatgccc tgggtcgaggc actcttcgca  
 60  
 gactcccagt ccgtgagtc gcgtcatgac atgggtggcg acatcatccc gagattcgtc  
 120  
 gaggccgggg acgcgcaggt ctacgacttc tgtgacaacc aggtgcccg aaccaccgag  
 180  
 aaggatcggg actactggcg ggäcgtggga actatcgatg cctaccacga cgcgcacatg  
 240  
 gacctcgtgt cgggtgaacc ggagtccaac ctctacaacc ccgactggcc gatctggagc  
 300  
 atccaggaac aggcaccggg agcgaaattt  
 330

<210> 640

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 640

```

Xaa Ala Ser Met Gly Asn Tyr Ile Phe Ser Arg Asp Ala Leu Val Glu
 1           5           10           15
Ala Leu Phe Ala Asp Ser Gln Ser Ala Glu Ser Arg His Asp Met Gly
          20           25           30
Gly Asp Ile Ile Pro Arg Phe Val Glu Ala Gly Asp Ala Gln Val Tyr
          35           40           45
Asp Phe Cys Asp Asn Gln Val Pro Gly Thr Thr Glu Lys Asp Arg Asp
          50           55           60
Tyr Trp Arg Asp Val Gly Thr Ile Asp Ala Tyr His Asp Ala His Met
65           70           75           80
Asp Leu Val Ser Val Glu Pro Glu Phe Asn Leu Tyr Asn Pro Asp Trp
          85           90           95
Pro Ile Trp Ser Ile Gln Glu Gln Ala Pro Gly Ala Lys Phe
          100          105          110

```

&lt;210&gt; 641

&lt;211&gt; 491

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 641

```

cgctgaccg gcgaggagaa cgtgcgcaag atcctcatgg gcgagcacca cctcgtgagc
60
accgagtggc ctgcagcac ccgcatgttg ctggggcccca acacgggtgtc caattccatt
120
ggcgacatcc accgcaacaa gcgcaaggtc ttctccaaga tcttcagcca cgaggccctg
180
gagagttacc tgccaagat ccagctggtg atccaggaca cactgcgcgc ctggagcagc
240
caccgcgagg ccatcaacgt gtaccaggag gcgcagaagc tgaccttcg catggccatc
300
cgggtgctgc tgggttcag catcctgag gaggaccttg ggcacctctt tgaggtctac
360
cagcagtttg tggacaatgt cttctccctg cctgtcgacc tgcccttcag tggctaccgg
420
cggggcattc aggtcggca gatcctgcag aaggggctgg agaaggccat ccgggagaag
480
ctgcagtgca c
491

```

&lt;210&gt; 642

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 642

```

Arg Val Thr Gly Ala Glu Asn Val Arg Lys Ile Leu Met Gly Glu His
 1           5           10           15
His Leu Val Ser Thr Glu Trp Pro Arg Ser Thr Arg Met Leu Leu Gly
          20           25           30
Pro Asn Thr Val Ser Asn Ser Ile Gly Asp Ile His Arg Asn Lys Arg
          35           40           45
Lys Val Phe Ser Lys Ile Phe Ser His Glu Ala Leu Glu Ser Tyr Leu

```

50		55		60
Pro Lys Ile Gln Leu Val Ile Gln Asp Thr Leu Arg Ala Trp Ser Ser				
65		70		75
His Pro Glu Ala Ile Asn Val Tyr Gln Glu Ala Gln Lys Leu Thr Phe				80
	85		90	95
Arg Met Ala Ile Arg Val Leu Leu Gly Phe Ser Ile Pro Glu Glu Asp				
	100		105	110
Leu Gly His Leu Phe Glu Val Tyr Gln Gln Phe Val Asp Asn Val Phe				
	115		120	125
Ser Leu Pro Val Asp Leu Pro Phe Ser Gly Tyr Arg Arg Gly Ile Gln				
	130		135	140
Ala Arg Gln Ile Leu Gln Lys Gly Leu Glu Lys Ala Ile Arg Glu Lys				
145		150		155
Leu Gln Cys				160

&lt;210&gt; 643

&lt;211&gt; 628

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 643

nagatctttg acatctacgt ggtcacgct gactacctgc ccctaggggc tgagcaggat

60

gccatcacgc tgcgggaagg ccagtatgtg gaggtcctgg atgcagccca cccactgcgc

120

tggtttgtcc gcaccaagcc caccaagtcc agccctcac ggcagggtg ggtgtcacca

180

gcctacctgg acaggaggct caagctgtca cctgagtggg gggccgctga ggccctgag

240

ttccctgggg aggtgtgtc tgaagacgaa tacaaggcaa ggctgagctc tgtgatccag

300

gagctgctga gttctgagca ggccttcgtg gaggagctgc agttcctgca gagccaccac

360

ctgcagcacc tggagcgctg cccccagtg cccatagctg tggccggcca gaaggcagtc

420

atcttcgca atgtgcggga catcgccgc ttccacagca gcttcctgca ggagttgcag

480

cagtgcgaca cggacgacga cgtggccatg tgcttcacga agaaccaggc ggcctttgag

540

cagtacctgg agttcctggt gggacgtgtg caggctgagt cggtggtcgt cagcacggcc

600

atccaggagt tctacaagaa atacgct

628

&lt;210&gt; 644

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 644

Xaa Ile Phe Asp Ile Tyr Val Val Thr Ala Asp Tyr Leu Pro Leu Gly

1

5

10

15

Ala Glu Gln Asp Ala Ile Thr Leu Arg Glu Gly Gln Tyr Val Glu Val

	20		25		30										
Leu	Asp	Ala	Ala	His	Pro	Leu	Arg	Trp	Leu	Val	Arg	Thr	Lys	Pro	Thr
	35		40		45										
Lys	Ser	Ser	Pro	Ser	Arg	Gln	Gly	Trp	Val	Ser	Pro	Ala	Tyr	Leu	Asp
	50		55		60										
Arg	Arg	Leu	Lys	Leu	Ser	Pro	Glu	Trp	Gly	Ala	Ala	Glu	Ala	Pro	Glu
65			70		75				80						
Phe	Pro	Gly	Glu	Ala	Val	Ser	Glu	Asp	Glu	Tyr	Lys	Ala	Arg	Leu	Ser
		85			90				95						
Ser	Val	Ile	Gln	Glu	Leu	Leu	Ser	Ser	Glu	Gln	Ala	Phe	Val	Glu	Glu
	100				105				110						
Leu	Gln	Phe	Leu	Gln	Ser	His	His	Leu	Gln	His	Leu	Glu	Arg	Cys	Pro
	115				120				125						
His	Val	Pro	Ile	Ala	Val	Ala	Gly	Gln	Lys	Ala	Val	Ile	Phe	Arg	Asn
	130				135				140						
Val	Arg	Asp	Ile	Gly	Arg	Phe	His	Ser	Ser	Phe	Leu	Gln	Glu	Leu	Gln
145			150		155				160						
Gln	Cys	Asp	Thr	Asp	Asp	Val	Ala	Met	Cys	Phe	Ile	Lys	Asn	Gln	
		165			170				175						
Ala	Ala	Phe	Glu	Gln	Tyr	Leu	Glu	Phe	Leu	Val	Gly	Arg	Val	Gln	Ala
		180			185				190						
Glu	Ser	Val	Val	Val	Ser	Thr	Ala	Ile	Gln	Glu	Phe	Tyr	Lys	Lys	Tyr
	195				200				205						
Ala															

&lt;210&gt; 645

&lt;211&gt; 417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 645

atccataggc attgccagag tattcacttc ctgttgaggg cacacagggg agaggcctgt  
60  
gaggggaagg gcatcaatgc agggctgggg tgtgggaagg tctgcagggc tggcaatggg  
120  
caagctcagg aatgggtgggg gagacagttg gagccacggc agggacaatg gagctcagaa  
180  
ggtcctctg tcatcccttt tggaacccat tgatctggaa aatttggggc agtgtccttt  
240  
tccgtaggta ctggaggcac tggcttgaca tactacagcc ctcccaggag gccagaagg  
300  
tagatgttat aactaccccc attttccaga tgaagaaact gagcctctgg gatctgcgga  
360  
agctcccaga gctggagcag ttagtcctg ggcctacac tcacagcaca gtttccc  
417

&lt;210&gt; 646

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 646

Met Val Gly Glu Thr Val Gly Ala Thr Ala Gly Thr Met Glu Leu Arg

```

1           5           10           15
Arg Ser Leu Cys His Pro Phe Trp Asn Pro Leu Ile Trp Lys Ile Trp
      20           25           30
Gly Ser Val Leu Phe Arg Arg Tyr Trp Arg His Trp Leu Asp Ile Leu
      35           40           45
Gln Pro Ser Gln Glu Ala Gln Lys Val Asp Val Ile Thr Thr Pro Ile
      50           55           60
Phe Gln Met Lys Lys Leu Ser Leu Trp Asp Leu Arg Lys Leu Pro Glu
65           70           75           80
Leu Glu Gln Leu Val Pro Gly Pro Tyr Thr His Ser Thr Val Ser
      85           90           95

```

&lt;210&gt; 647

&lt;211&gt; 421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 647

```

acgcgttttcg gttcttgagc gcttccacca attcagcggg ggtgagcggc ccctgtgcat
60
cgcgacgacg ggtgatcaga taggcgatat ccgcctcggt cagttgcacg gtgtcggtat
120
cggtagccat gcgtggcgaa ctcttttggc atgggaaaat cgggtgaggc caacgggcac
180
agcaacagga cgtgtccctt gcggcacgtg gcaacacgtc agtatagcgc gtttccgcgc
240
ggatttccgt tgaatgaagg caagaagtcg ggcacgcac cactgctac cgctcggtgg
300
tacgatagcc gggcgccac caggttggtt acattccaaa cgcaacgcag gaaccgcac
360
gaacagcgtt ttctgcaaca aacccttat gacgctggct ctgggcatt tcagtgtcga
420
c
421

```

&lt;210&gt; 648

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 648

```

Met Gly Lys Ser Gly Glu Ala Asn Gly His Ser Asn Arg Thr Cys Pro
1           5           10           15
Leu Arg His Val Ala Thr Arg Gln Tyr Ser Ala Phe Pro Pro Gly Phe
      20           25           30
Pro Leu Asn Glu Gly Lys Lys Ser Gly Thr His Pro Pro Ala Thr Ala
      35           40           45
Arg Trp Tyr Asp Ser Arg Gly Ala Thr Arg Leu Ala Thr Phe Gln Thr
      50           55           60
Gln Arg Arg Asn Pro His Glu Gln Arg Phe Ser Gln Gln Thr Pro Tyr
65           70           75           80
Asp Ala Gly Ser Arg Ala Phe Gln Cys Arg
      85           90

```

<210> 649  
 <211> 563  
 <212> DNA  
 <213> Homo sapiens

<400> 649  
 cgcaacatgc ataaacacat gtgctcctcc gagactcagc tacttccttt gccctctctg  
 60  
 gacctcagtg tccaggcttg tgcatttagg ggctcagggt tgggctctgt gcctatgagc  
 120  
 cagtctatgt gtgcactgtc tgtctgtctg tccgtctgcc agcaaccttc aaggccccag  
 180  
 gaggggaagg caccaatgga aggtgggggc agggaaggag gtagcggtga caagttccaa  
 240  
 tgtctggctt tccctcctgg aaaccccgag ctggggctgg ccccccttc ccttcctgtc  
 300  
 tctctcgctc aagcacgtcc cttctaagag cccctctctg cagacgcccc cagtggaacc  
 360  
 aagcctagat tcgctgccaa gaaggccgac attttttaga cttgccacgt taaaggggcc  
 420  
 tgcacaggca cgcactcaaa tccccccctc catgtcctcc gcctgtgcac attcaggcaa  
 480  
 cccgaaacac acaaagacac ggttggacac agcgccacc tgtgcacaca ggaggtagca  
 540  
 catggagcgc atctgacccc ggg  
 563

<210> 650  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 650  
 Met His Lys His Met Cys Ser Ser Glu Thr Gln Leu Leu Pro Leu Pro  
 1 5 10 15  
 Ser Leu Asp Leu Ser Val Gln Ala Cys Ala Phe Arg Gly Ser Gly Leu  
 20 25 30  
 Gly Ser Val Pro Met Ser Gln Ser Met Cys Ala Leu Ser Val Cys Leu  
 35 40 45  
 Ser Val Cys Gln Gln Pro Ser Arg Pro Gln Glu Gly Lys Ala Pro Met  
 50 55 60  
 Glu Gly Gly Gly Arg Glu Gly Gly Ser Val Asp Lys Phe Gln Cys Leu  
 65 70 75 80  
 Ala Phe Pro Pro Gly Asn Pro Glu Leu Gly Leu Ala Pro Pro Ser Leu  
 85 90 95  
 Pro Val Ser Leu Ala Gln Ala Arg Pro Phe  
 100 105

<210> 651  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 651

gaattcttca acaagctctc ctgctctagg atcaaggata gacctataca aggtccaaac  
60  
cataatggag tccatggggt caaagttatc tcttgagct cagcagttga tggatatggt  
120  
taggtgtcag cagcggaatt gtattcccat tggagagcag cttcagtcgg tgttgggcaa  
180  
ttctggatac aagcatatga ttggactaca atcctcatct accttaggaa ccttaaacia  
240  
gtcgtctcc acaccttttc cttttagaac tggattgaca tctgggaacg tgactgaaaa  
300  
cttacaagcg tacattgata aaagtacaca actgcctggt ggagagaatt c  
351

<210> 652

<211> 95

<212> PRT

<213> Homo sapiens

<400> 652

Met	Glu	Ser	Met	Gly	Ser	Lys	Leu	Ser	Pro	Gly	Ala	Gln	Gln	Leu	Met
1				5				10						15	
Asp	Met	Val	Arg	Cys	Gln	Gln	Arg	Asn	Cys	Ile	Pro	Ile	Gly	Glu	Gln
			20					25					30		
Leu	Gln	Ser	Val	Leu	Gly	Asn	Ser	Gly	Tyr	Lys	His	Met	Ile	Gly	Leu
		35				40					45				
Gln	Ser	Ser	Ser	Thr	Leu	Gly	Thr	Leu	Asn	Lys	Ser	Ser	Ser	Thr	Pro
	50				55					60					
Phe	Pro	Phe	Arg	Thr	Gly	Leu	Thr	Ser	Gly	Asn	Val	Thr	Glu	Asn	Leu
65				70				75						80	
Gln	Ala	Tyr	Ile	Asp	Lys	Ser	Thr	Gln	Leu	Pro	Gly	Gly	Glu	Asn	
				85				90						95	

<210> 653

<211> 399

<212> DNA

<213> Homo sapiens

<400> 653

nncccggtg gggctggggt ggggccagca tcagaggagg acatgaccaa gctgtgcaac  
60  
caccggcgga aagctgttgc tatggcaact ctgtaccgca gcatggagac cacctgtctc  
120  
cactcttctc ctggagaggg agcgagcccc caaatgttcc aactgtgtc cccagggccc  
180  
ccctctgccc gccctccctg tcgagttcct cctacaactc cacttaatgg gggctctggc  
240  
tccttcccc cagaaccacc ctcaagtttc caggccttcc cactctagc aggccctggg  
300  
gggcttttcc ccccaaggct tgetgacca gtcccttctg ggggcagtag cagccccgt  
360  
ttctcccaa ggggcaatgc cccctctcca gcccacct  
399

<210> 654



<211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Xaa Pro Gly Gly Ala Gly Val Gly Pro Ala Ser Glu Glu Asp Met Thr  
 1 5 10 15  
 Lys Leu Cys Asn His Arg Arg Lys Ala Val Ala Met Ala Thr Leu Tyr  
 20 25 30  
 Arg Ser Met Glu Thr Thr Cys Ser His Ser Ser Pro Gly Glu Gly Ala  
 35 40 45  
 Ser Pro Gln Met Phe His Thr Val Ser Pro Gly Pro Pro Ser Ala Arg  
 50 55 60  
 Pro Pro Cys Arg Val Pro Pro Thr Thr Pro Leu Asn Gly Gly Pro Gly  
 65 70 75 80  
 Ser Leu Pro Pro Glu Pro Pro Ser Val Ser Gln Ala Phe Pro Thr Leu  
 85 90 95  
 Ala Gly Pro Gly Gly Leu Phe Pro Pro Arg Leu Ala Asp Pro Val Pro  
 100 105 110  
 Ser Gly Gly Ser Ser Ser Pro Arg Phe Leu Pro Arg Gly Asn Ala Pro  
 115 120 125  
 Ser Pro Ala Pro Pro  
 130

<210> 655  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 655  
 tgaaggaaat tctctatggc ttgtgttcat catgtagaac agcccatgag gagaatagga  
 60  
 gatgaggtgg gaagtgcact gggatctggg ggaagaagcc cggggttcaa gactcagcta  
 120  
 ctgactgcat ggtgtcaaag gattcgggca tcctctctga ggctgagtct tcagatgaca  
 180  
 gtgagaacag ggacacctgc cctgcccttc tcacggggcg tgtgggcacc catgagcatg  
 240  
 cttgacaaat gcaaggtgcc atacaaacag gaactgcaca atctcaccgc ccggcctact  
 300  
 cagcattgtt atttttacct ttacatctat atgaagatgt agttccattc cttttaactg  
 360  
 ttgttttc  
 368

<210> 656  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 656  
 Met Ala Cys Val His His Val Glu Gln Pro Met Arg Arg Ile Gly Asp  
 1 5 10 15  
 Glu Val Gly Ser Ala Leu Gly Ser Gly Gly Arg Ser Pro Gly Phe Lys

```

      20      25      30
Thr Gln Leu Leu Thr Ala Trp Cys Gln Arg Ile Arg Ala Ser Ser Leu
      35      40      45
Arg Leu Ser Leu Gln Met Thr Val Arg Thr Gly Thr Pro Ala Leu Pro
      50      55      60
Phe Ser Arg Gly Val Trp Ala Pro Met Ser Met Leu Asp Lys Cys Lys
      65      70      75      80
Val Pro Tyr Lys Gln Glu Leu His Asn Leu Thr Ala Arg Pro Thr Gln
      85      90      95
His Cys Tyr Phe Tyr Leu Tyr Ile Tyr Met Lys Met
      100      105

```

&lt;210&gt; 657

&lt;211&gt; 330

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 657

```

gtcgaccacg gcatgaaaaa gccggggatg atcctcatca acaaccctg gggcgagtcc
60
aacgaggcgg gcttcaagcg cgcctcgaa gagcgtggca tggccaacgc cgggtgctgag
120
cgtattcagg acagcgacct ggacgtgggt cgcgaattga ccccgctga aaaacgccgg
180
tgccgacacc ttgctgatgg tcggcaacgt cggcccttcg gcacaggtgg tcaagtcctt
240
ggaccgcatg ggttgggacg tgctgtggt gtctcactgg gggccggccg gnggtcgctt
300
tggcgagctg gcggggccta acgcttctcg
330

```

&lt;210&gt; 658

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 658

```

Met Lys Lys Pro Gly Met Ile Leu Ile Asn Asn Pro Trp Gly Glu Ser
  1      5      10      15
Asn Glu Ala Gly Phe Lys Arg Ala Leu Glu Glu Arg Gly Met Ala Asn
      20      25      30
Ala Gly Val Glu Arg Ile Gln Asp Ser Asp Leu Asp Val Val Pro Gln
      35      40      45
Leu Thr Pro Pro Glu Lys Arg Arg Cys Arg His Leu Ala Asp Gly Arg
      50      55      60
Gln Arg Arg Pro Phe Gly Thr Gly Gly Gln Val Pro Gly Pro His Gly
      65      70      75      80
Leu Gly Arg Ala Cys Gly Val Ser Leu Gly Ala Gly Arg Xaa Ser Leu
      85      90      95
Trp Arg Ala Gly Gly Ala
      100

```

&lt;210&gt; 659

&lt;211&gt; 1505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 659

gccaggatca tgtccaccac cacatgccaa gtggtggcgt tctctctgtc catcctgggg  
60  
ctggccggct gcacgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac  
120  
aaccctgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt gaggcagagt  
180  
tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag  
240  
gcagtgcgag cctgatgat cgtaggcatc gtcttgggtg ccattggcct cctggatatcc  
300  
atctttgccc tgaaatgcat ccgcattggc agcatggagg actctgccaa agccaacatg  
360  
acactgacct ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct  
420  
gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaaccat gtacaccggc  
480  
atgggtggga tgggtgcagac tgttcagacc aggtacacat ttggtgcggc tctgttcgtg  
540  
ggctgggtcg ctggaggcct cacactaatt ggggtgtgta tgatgtgcat cgctgcggg  
600  
ggcctggcac cagaagaaac caactacaaa gccgtttctt atcatgcctc aggccacagt  
660  
gttgccctaca agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac  
720  
aagaagatat acgatggagg tgcccgaca gaggacgagg tacaatctta tccttccaag  
780  
cacgactatg tgtaatgtc taagacctct cagcacgggc ggaagaaact cccggagagc  
840  
tcacccaaaa aacaaggaga tcccatctag atttcttctt gcttttgact cacagctgga  
900  
agttagaaaa gcctcgattt catctttgga gaggccaagt ggtcttagcc tcagtctctg  
960  
tctctaaata ttccaccata aaacagctga gttatttatg aattagaagc tatagctcac  
1020  
attttcaatc ctctatttct ttttttaaataa ataatcttct actctgatga gagaatgtgg  
1080  
ttttaatctc tctctcacat tttgatgatt tagacagact cccctcttc ctctagtca  
1140  
ataaacccat tgatgatcta ttcccagct tatccccaag aaaacttttg aaaggaaaga  
1200  
gtagacccaa agatgttatt ttctgctgtt tgaattttgt ctccccacc ccaacttggc  
1260  
tagtaataaa cacttactga agaagaagca ataagagaaa gatatttgta atctctccag  
1320  
cccatgatct cggttttctt aactgtgat cttaaaagt accaaaccaa agtcattttc  
1380  
agtttgaggc aaccaaact ttctactgct gttgacatct tcttattaca gcaacaccat  
1440  
tctaggagt tctgagctc tccactggag tctccctt ctgtctctt ctgcagcgg  
1500

tacc

1505

&lt;210&gt; 660

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 660

```

Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile Leu
 1           5           10           15
Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp Ser Thr
 20           25           30
Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln Tyr Glu Gly
 35           40           45
Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg
 50           55           60
Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg
 65           70           75           80
Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val
 85           90           95
Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser
 100          105          110
Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser
 115          120          125
Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val
 130          135          140
Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly
 145          150          155          160
Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe
 165          170          175
Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met
 180          185          190
Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala
 195          200          205
Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly
 210          215          220
Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile
 225          230          235          240
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro Ser
 245          250          255
Lys His Asp Tyr Val
 260

```

&lt;210&gt; 661

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 661

```

nnacgcgtgt agtttggtga tcggcgcgga actcgccgctg tctgatctcg aggagcttcc
60
cccatggacg agattttaac cttgcttgcc ggaggcggtg acgacgagcc agagtggcat
120

```

gacaaggcat tatgtgcca gactgatccg gaggcattct tccctgaaaa ggttggatcc  
 180  
 acccgtgagg ccaagcgcac ctgtgagtc tgtgaggtcc gccaggagt cttggagtac  
 240  
 gcccttgcca atgacgagag gtccggaatc tggggcggat tgtccgagat ggagaggcgt  
 300  
 cggctgcgca agcggggcgtg acctgacgtc ggagcgcggt tattgacacg gcccggtaaa  
 360  
 atgccctgtc tgcccgggat ggctgtctgc acgatgcggc atatgcgatg atcgcagacg  
 420  
 tgggtgtcat cccgtgtctc atgacgtcga c  
 451

<210> 662

<211> 85

<212> PRT

<213> Homo sapiens

<400> 662

Met	Asp	Glu	Ile	Leu	Thr	Leu	Leu	Ala	Gly	Gly	Gly	Asp	Asp	Glu	Pro
1				5					10					15	
Glu	Trp	His	Asp	Lys	Ala	Leu	Cys	Ala	Gln	Thr	Asp	Pro	Glu	Ala	Phe
			20					25					30		
Phe	Pro	Glu	Lys	Gly	Gly	Ser	Thr	Arg	Glu	Ala	Lys	Arg	Ile	Cys	Glu
		35				40						45			
Ser	Cys	Glu	Val	Arg	Gln	Glu	Cys	Leu	Glu	Tyr	Ala	Leu	Ala	Asn	Asp
	50				55					60					
Glu	Arg	Phe	Gly	Ile	Trp	Gly	Gly	Leu	Ser	Glu	Met	Glu	Arg	Arg	Arg
65				70					75					80	
Leu	Arg	Lys	Arg	Ala											
				85											

<210> 663

<211> 552

<212> DNA

<213> Homo sapiens

<400> 663

ctcgagcgtc tcgacgccga cgccgccag ggagccaagg aagacctctc gcagcgcgac  
 60  
 ccctacgacg tgctcgtcgt aggggcgggt cccgccggtg ccgcggccgc cgtgtacgcg  
 120  
 gctcgtaagg gcattcgcac cgccatggtc ggggtctcga tcggcggcca ggtactcgat  
 180  
 accgaggcca tcgacaacct catctcgggt cgcacacca ccggtccgcg tctggccgac  
 240  
 gccctccgca gccacgtcaa cgactacaac attgacgtta ttgacgtca gaccgccagc  
 300  
 gccatagaga ccaccggcgg tatgaccacc gtgcactctga ccgacggcga cctgcggggc  
 360  
 cgctcagtca tcgtggccac cgggtcccgc tggcgcaacc ttggcgtacc tggcgaggag  
 420  
 gaataccgca ccaaggtgtg gacctactgc ccgcactgcg atggcccgtt attcacaggc  
 480

aaaaaggtgg ccgtcgtcgg aggtggaaac tccggtattg aggcgctat cgacctcgcc

540

ggcgtcgtcg ac

552

<210> 664

<211> 184

<212> PRT

<213> Homo sapiens

<400> 664

Leu Glu Arg Leu Asp Ala Asp Ala Ala Gln Gly Ala Lys Glu Asp Leu

1

5

10

15

Ser Gln Arg Asp Pro Tyr Asp Val Leu Val Val Gly Ala Gly Pro Ala

20

25

30

Gly Ala Ala Ala Val Tyr Ala Ala Arg Lys Gly Ile Arg Thr Ala

35

40

45

Met Val Gly Ser Arg Ile Gly Gly Gln Val Leu Asp Thr Glu Ala Ile

50

55

60

Asp Asn Leu Ile Ser Val Pro His Thr Thr Gly Pro Arg Leu Ala Asp

65

70

75

80

Ala Leu Arg Ser His Val Asn Asp Tyr Asn Ile Asp Val Ile Glu Arg

85

90

95

Gln Thr Ala Ser Ala Ile Glu Thr Thr Gly Gly Met Thr Thr Val His

100

105

110

Leu Thr Asp Gly Asp Leu Arg Ala Arg Ser Val Ile Val Ala Thr Gly

115

120

125

Ala Arg Trp Arg Asn Leu Gly Val Pro Gly Glu Glu Glu Tyr Arg Thr

130

135

140

Lys Gly Val Thr Tyr Cys Pro His Cys Asp Gly Pro Leu Phe Thr Gly

145

150

155

160

Lys Lys Val Ala Val Val Gly Gly Gly Asn Ser Gly Ile Glu Ala Ala

165

170

175

Ile Asp Leu Ala Gly Val Val Asp

180

<210> 665

<211> 352

<212> DNA

<213> Homo sapiens

<400> 665

acgcgtacag ttcgccgtcg aggttgaaca ccacgatcgg tgtaccggtc acttcgtcga

60

acacgctctt catttcgccc ggcagcagtt cggcgccggc gcagacaaag gtccaggcct

120

cgctcacgcg gtggccccgg ccagcggctt ttccaggatc tcgaaacgca ggtcgtcgcg

180

cttggggatg ccgaatcggt cgtcgccata cggaacggc ttcttgatgc cggtgccgag

240

gtagccgcgg cgctcgtaga agcgatcaga tcgcgcgcac gtcgatcact gtcattctgca

300

ttaccggcac gttccattcg cgcgcggcgt gggcttcggc ggcgtccatc aa

352

<210> 666  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Met Glu Arg Ala Gly Asn Ala Asp Asp Ser Asp Arg Arg Ala Arg Asp  
 1 5 10 15  
 Leu Ile Ala Ser Thr Ser Ala Ala Ala Thr Cys Ala Pro Ala Ser Arg  
 20 25 30  
 Ser Arg Ser Arg Met Ala Thr Asn Asp Ser Ala Ser Pro Ser Ala Thr  
 35 40 45  
 Thr Cys Val Ser Arg Ser Trp Lys Ser Arg Trp Pro Gly Pro Pro Arg  
 50 55 60  
 Glu Arg Gly Leu Asp Leu Cys Leu Arg Arg Arg Thr Ala Ala Gly  
 65 70 75 80  
 Arg Asn Glu Glu Arg Val Arg Arg Ser Asp Arg Tyr Thr Asp Arg Gly  
 85 90 95  
 Val Gln Pro Arg Arg Arg Thr Val Arg  
 100 105

<210> 667  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 667  
 nacgcgtacg aatcgggtgtt gcgtcgcaac ccaggggagg ccgagttcca ccaggctgtg  
 60  
 cgggagatct ttgaatctct cggcccgggtg ctgcacaaga atccgcagta cgtggaggca  
 120  
 gccgtgttgt cgcgcattctg cgaaccggaa cgccagatca ttttcgggt gccgtgggtt  
 180  
 gacgacgagg gcaagatccg tatcaaccgt ggcttcgcg ttgaatatc gtcggtactg  
 240  
 gggcgtata aggggtggatt gcgattccac ccctcgggtg acttaggaac gattaagttc  
 300  
 cttggttttg agcagatctt caaaaatgct ctgactggca tgccgatcgg tggcgcggaag  
 360  
 ggtgggtcgg actttgatcc ccatgacgcg t  
 391

<210> 668  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 668  
 Xaa Ala Tyr Glu Ser Val Leu Arg Arg Asn Pro Gly Glu Ala Glu Phe  
 1 5 10 15  
 His Gln Ala Val Arg Glu Ile Phe Glu Ser Leu Gly Pro Val Leu Asp  
 20 25 30  
 Lys Asn Pro Gln Tyr Val Glu Ala Ala Val Leu Ser Arg Ile Cys Glu

```

      35          40          45
Pro Glu Arg Gln Ile Ile Phe Arg Val Pro Trp Val Asp Asp Glu Gly
  50          55          60
Lys Ile Arg Ile Asn Arg Gly Phe Arg Val Glu Tyr Ser Ser Val Leu
  65          70          75          80
Gly Pro Tyr Lys Gly Gly Leu Arg Phe His Pro Ser Val Tyr Leu Gly
      85          90          95
Thr Ile Lys Phe Leu Gly Phe Glu Gln Ile Phe Lys Asn Ala Leu Thr
      100          105          110
Gly Met Pro Ile Gly Gly Ala Lys Gly Gly Ser Asp Phe Asp Pro His
      115          120          125
Asp Ala
      130

```

&lt;210&gt; 669

&lt;211&gt; 707

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 669

```

nngagtccgt tccccgtcta agctcatcgt ggtggtgctg gcatggccgt caacaaggga
60
attgagaaca cccttgctgc cttcggccac gcggtcgagg tgggatgcac ctaccttgaa
120
actgacgttc acgcgaccag cgacgggggtg ctagtggcct tccacgatcc gatactcgat
180
cgcgtcactg aatcaggcgg agtcatcgcc gccatgccgt ggcacaaggt caaacaagcc
240
aaggttggtg gcgaaccgat cccacacctta gatgagattt tcgacgcctt tcccgcgcg
300
ttcatcaata tcgacatcaa gcatgatggc gccaccatgc cgtcatcga cgttctttcc
360
cgtcaccggg cttggagtcg ggtttgcgtc gggtcgttca gcagtaaacy catccagacc
420
ttccgtcgcc tggttcaggg acgcactgcg actgcagtgg ggtcgggtggg agtcnnggct
480
gggctgtcat cagccctcat agcatgcaga tggcacagtc ccatgggaat gcgtaccagg
540
tgccgcaccg cttgaccggg tnatgggggtg ccccttgatga caccgacctt cattaaagct
600
gcccatcgtc agggggcgagc tggtcatgtc tggacgggta atgagatctc tgagggtcga
660
gaactgatgg atatgggggt cgacggcatc gtcacagatc gtccgga
707

```

&lt;210&gt; 670

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 670

```

Met Ala Val Asn Lys Gly Ile Glu Asn Thr Leu Ala Ala Phe Gly His
  1          5          10          15
Ala Val Glu Val Gly Cys Thr Tyr Leu Glu Thr Asp Val His Ala Thr

```



20 25 30  
 Ser Asp Gly Val Leu Val Ala Phe His Asp Pro Ile Leu Asp Arg Val  
 35 40 45  
 Thr Glu Ser Gly Gly Val Ile Ala Ala Met Pro Trp His Lys Val Lys  
 50 55 60  
 Gln Ala Lys Val Gly Gly Glu Pro Ile Pro Thr Leu Asp Glu Ile Phe  
 65 70 75 80  
 Asp Ala Phe Pro Asp Ala Phe Ile Asn Ile Asp Ile Lys His Asp Gly  
 85 90 95  
 Ala Thr Met Pro Leu Ile Asp Val Leu Ser Arg His Arg Ala Trp Ser  
 100 105 110  
 Arg Val Cys Val Gly Ser Phe Ser Ser Lys Arg Ile Gln Thr Phe Arg  
 115 120 125  
 Arg Leu Val Gln Gly Arg Thr Ala Thr Ala Val Gly Ser Val Gly Val  
 130 135 140  
 Xaa Ala Gly Leu Ser Ser Ala Leu Ile Ala Cys Arg Trp His Ser Pro  
 145 150 155 160  
 Met Gly Met Arg Thr Arg Cys Arg Thr Ala  
 165 170

&lt;210&gt; 671

&lt;211&gt; 444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 671

acgcgtggggc cttcgggttg atgggatcag aaggggacgg gacctgtaga aaggggcctg  
 60  
 cagctcagag catggggcgg ctttggtca ctacgcctgc agctgtgaat tcgttctccg  
 120  
 gtgctggaga gggatctggt tatctccatt ctctgtctc cacgtggaaa ggaaggacgt  
 180  
 gcgctctcat cctacgtggt ttgagaaatc gcattgtccc cagctctgag ggaggatctg  
 240  
 gggacgcagt ggggaaccag acaggcagtt ggaggtctag tgcgcgccag aagccagttc  
 300  
 ccacccaggg tgccatttgc tgggcgcctt agggagctgc gtgggcatcc agaggagtga  
 360  
 gtgcgccctt gctctgtca gtgccactt ccccgggcag ggcaggcgtt attaacgtag  
 420  
 agggagaaca cccatgcaca caac  
 444

&lt;210&gt; 672

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 672

Met Gly Ser Glu Gly Asp Gly Thr Cys Arg Lys Gly Pro Ala Ala Gln  
 1 5 10 15  
 Ser Met Gly Arg Pro Trp Leu Thr Thr Pro Ala Ala Val Asn Ser Phe  
 20 25 30  
 Ser Gly Ala Gly Glu Gly Ser Gly Tyr Leu His Ser Leu Val Ser Thr

35 40 45  
 Trp Lys Gly Arg Thr Cys Ala Leu Ile Leu Arg Val Leu Arg Asn Arg  
 50 55 60  
 Ile Val Pro Ser Ser Ala Gly Gly Ser Gly Asp Ala Val Gly Asn Gln  
 65 70 75 80  
 Thr Gly Ser Trp Arg Ser Ser Ala Arg Gln Lys Pro Val Pro Thr Gln  
 85 90 95  
 Gly Ala Ile Cys Trp Ala Pro  
 100

&lt;210&gt; 673

&lt;211&gt; 452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 673

acgcgtccct gcagaaatcc tctcggccta ggtcatccgc aagatgtggc agggcatgca  
 60  
 ccgtgaaagc cttcaagtct gccgcagcaa gaccgcacgc ctgctgaaat tcgcagttgt  
 120  
 gccgcggtcc ctgatgcgga caaactcggc caccacgatc agcctgacgc ttgcggacca  
 180  
 acgttcaaat actgtgcact tgaaacgtcc gggccgcac accctgggtga ctttgtgcga  
 240  
 ccgacattac ttatgttcac gctctttcag ttcttgtcaa taccgtattt ttcgtcgacg  
 300  
 tctccatcag aaaaatgtcg gtgttaccgc accgcagacg atgcgtaccc ttgcgtgac  
 360  
 gatggaggcc ttgaaaagtg cattagccac tactgggcca atctacggca aaaagctgtt  
 420  
 actaggcggg gattggggag gcccgtagtg gc  
 452

&lt;210&gt; 674

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 674

Met Trp Gln Gly Met His Arg Glu Ser Leu Gln Val Cys Arg Ser Lys  
 1 5 10 15  
 Thr Ala Arg Leu Leu Lys Phe Ala Val Val Pro Arg Ser Leu Met Arg  
 20 25 30  
 Thr Asn Ser Ala Thr Thr Ile Ser Leu Thr Leu Ala Asp Gln Arg Ser  
 35 40 45  
 Asn Thr Val His Leu Lys Arg Pro Gly Arg Ile Thr Trp Val Thr Leu  
 50 55 60  
 Cys Asp Arg His Tyr Leu Cys Ser Arg Ser Phe Ser Ser Cys Gln Tyr  
 65 70 75 80  
 Arg Ile Phe Arg Arg Arg Leu His Gln Lys Asn Val Gly Val Thr Ala  
 85 90 95  
 Pro Gln Thr Met Arg Thr Leu Ala Leu Thr Met Glu Ala Leu Lys Ser  
 100 105 110  
 Ala Leu Ala Thr Thr Gly Arg Ile Tyr Gly Lys Lys Leu Leu Leu Gly

115  
Gly Asp Trp Gly Gly Pro  
130

120

125

&lt;210&gt; 675

&lt;211&gt; 8564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 675

atgtcgggct ccacacagct tgtggcacag acgtggaggg ccactgagcc ccgctacccg  
60  
ccccacagcc ttctctaccc agtgcagatc gcccgagcgc acacggacgt cgggctcctg  
120  
gagtaccagc accactcccc cgactatgcc tcccacctgt cggcgggctc catcatccag  
180  
ccccagcggc ggaggccctc cctgctgtct gagttccagc ccgggaatga acggtcccag  
240  
gagctccacc tgcggccaga gtccactca tacctgcccg agctggggaa gtcagagatg  
300  
gagttcattg aaagcaagcg ccctcggcta gagctgctgc ctgacccctt gctgcgaccg  
360  
tcacccttgc tggccacggg ccagcctgcg ggatctgaag acctcaccaa ggaccgtagc  
420  
ctgacgggca agctggaacc ggtgtctccc ccagccccc cgcacactga ccctgagctg  
480  
gagctggtgc cgccacggct gtccaaggag gagctgatcc agaacatgga ccgcgtggac  
540  
cgagagatca ccatggtaga gcagcagatc tctaagctga agaagaagca gcaacagctg  
600  
gaggaggagg ctgccaagcc gcccgagcct gagaagcccc tgccaccgcc gcccatcgag  
660  
tcgaagcacc gcagcctggt gcagatcatc tacgacgaga accggaagaa ggctgaagct  
720  
gcacatcgga ttctggaagg cctggggccc caggtggagc tgccgctgta caaccagccc  
780  
tccgacaccc ggcagtatca tgagaacatc aaaataaacc aggcgatgcg gaagaagcta  
840  
atcttgact tcaagaggag gaatcacgct cggaacaat gggagcagaa gttctgccag  
900  
cgctatgacc agctcatgga ggcctgggaa aaaaagggtg agcgcacgca gaacaacccc  
960  
cggcggcggg ccaaggagag caaggtgctc gagtactacg aaaagcagtt ccctgagatc  
1020  
cgcaagcagc gcgagctgca ggagcgcagc cagggcaggg tgggccagcg gggcagtggg  
1080  
ctgtccatgt cggccgcccc cagcgagcac gaggtgtcag agatcatcga tggcctctca  
1140  
gagcaggaga acctggagaa gcagatgcgc cagctggccg tgatccccgc catgctgtac  
1200  
gacgtgacc agcagcgcac caagttcatc aacatgaacg ggcttatggc cgaccccatg  
1260  
aaggtgtaca aagaccgcca ggtcatgaac atgtggagtg agcaggagaa ggagaccttc  
1320

cgaggagaagt tcatgcagca tcccaagaac tttggcctga tcgcatcatt cctggagagg  
1380  
aagacagtgg ctgagtgcgt cctctattac tacctgacta agaagaatga gaactataag  
1440  
agcctggtga gacggagcta tcggcgccgc ggcaagagcc agcagcagca acaacagcag  
1500  
cagcagcagc agcagcagca gcagcagcag cagcccatgc cccgcagcag ccaggaggag  
1560  
aaagatgaga aggagaagga aaaggaggcg gagaaggagg aggagaagcc ggaggtggag  
1620  
aacgacaagg aagacctcct caaggagaag acagacgaca cctcagggga ggacaacgac  
1680  
gagaaggagg ctgtggcctc caaaggccgc aaaactgcc aagccaggg aagacgcaaa  
1740  
ggccgcatca cccgctcaat ggctaagtag gccaacagcg aggaggccat cccccccag  
1800  
cagagcgccg agctggcctc catggagctg aatgagagtt ctcgctggac agaagaagaa  
1860  
atggaaacag ccaagaaagg tctcctggaa cagggccgca actggtcggc catcgcccg  
1920  
atggtgggct ccaagactgt gtcgcagtgt aagaacttct acttcaacta caagaagagg  
1980  
cagaacctcg atgagatctt gcagcagcac aagctgaaga tggagaagga gaggaacgcg  
2040  
cggaggaaga agaagaaagc gccggcgcg gccagcgagg aggtgcatt cccgccgtg  
2100  
gtggaggatg aggagatgga ggcgtcggc gtgagcgaa atgaggagga gatggtggag  
2160  
gaggctgaag ccttacatgc ctctgggaat gaggtgcca gaggggaatg cagtggcca  
2220  
gccactgtca acaacagctc agacaccgag agcatccct ctcctcacac ggaggccgc  
2280  
aaggacacag ggcagaatgg gcccaagccc ccagccccc tggcgccga cgggccccc  
2340  
ccaggccac ccacccacc acggaggaca tcccgggccc ccattgagcc caccgccgc  
2400  
tctgaagcca ccggagcccc tacgccccca ccagcacc ctcgcccctc tgcacctcct  
2460  
cctgtggtcc ccaaggagga gaaggaggag gagaccgcag cagcgcccc agtggaggag  
2520  
ggggaggagc agaagcccc cgcggtgag gagctggcag tggacacagg gaaggccgag  
2580  
gagcccgta agagcgagt cacggaggaa gccgaggagg ggccggccaa gggcaaggac  
2640  
gcggaggccg ctgaggccac ggccgaggg gcgctcaagg cagagaagaa ggaggcggg  
2700  
agcgcgagg ccaccactgc caagagctcg ggcgccccc aggacagcga ctccagtgt  
2760  
acctgcagt cagacgaggt ggatgaggcc gagggcgcg acaagaaccg gctgctgtcc  
2820  
ccaaggccca gcctcctcac cccgactggc gacccccgg ccaatgcctc accccagaag  
2880  
ccactggacc tgaagcagct gaagcagcga gcggctgcca tccccccat ccaggtcacc  
2940

aaagtccatg agcccccccg ggaggacgca gctcccacca agccagctcc cccagcccca  
3000  
ccgccaccgc aaaacctgca gccggagagc gacgcccctc agcagcctgg cagcagcccc  
3060  
cggggcaaga gcaggagccc ggaccccccc gccgacaagg aggccttcgc agccgaggcc  
3120  
cagaagctgc ctggggaccc cccttgctgg acttccggcc tgcccttccc cgtgcccccc  
3180  
cgtgaggtga tcaaggcctc cccgcatgcc ccggaccctt cagccttctc ctacgtcca  
3240  
cctggtcacc cactgcccct gggcctccat gacactgccc ggcccgtcct gccgcgcccc  
3300  
cccaccatct ccaaccgcgc tcccctcacc tctctgcca agcaccacag cgtcctcgag  
3360  
aggcaaatag gtgccatctc ccaaggaatg tcgggtccagc tccacgtccc gtactcagag  
3420  
catgccaaagg ccccggtggg ccctgtcacc atggggctgc ccctgcccac ggacccccaa  
3480  
aagctggcac ccttcagcgg agtgaagcag gagcagctgt cccacgggg ccaggctggg  
3540  
ccaccggaga gcctgggggt gccacagcc caggaggcgt ccgtgctgag agggacagct  
3600  
ctgggctcag ttccgggcgg aagcatcacc aaaggcatc ccagcacacg ggtgccctcg  
3660  
gacagcgcca tcacataccg cggctccacc acccacggca cgccagctga cgtcctgtac  
3720  
aagggcacca tcaccaggat catcggcgag gacagcccga gtcgcttga ccgcggccgg  
3780  
gaggacagcc tgcccaaggg ccacgtcacc tacgaaggca agaagggcca cgtcttgctc  
3840  
tatgaggggtg gcatgtctgt gaccagtgcc tccaaggagg acggcagaag cagctcagga  
3900  
ccccccatg agacggccgc cccaagcgc acctatgaca tgatggaggg ccgcgtgggc  
3960  
agagccatct cctcagccag catcgaaggc ctcaggggcc gtgccatccc gccggagcga  
4020  
cacagcccc accacctcaa agagcagcac cacatccgcg ggtccatcac acaagggatc  
4080  
cctcggtcct acgtggaggg acaggaggac tacctgcgtc gggaggccaa gctcctaaag  
4140  
cgggagggga cgctccgcgc cccaccgccc tcacgggacc tgaccgaggc ctacaagacg  
4200  
caggccctgg gccccctgaa gctgaagccg gcccatgagg gcctgggtggc cacggtgaag  
4260  
gaggcggggc gctccatcca tgagatcccg cgcgaggagc tgccggcacac gcccgagctg  
4320  
cccctggccc cgcggccgct caaggagggc tccatcacgc agggcacccc gctcaagtac  
4380  
gacaccggcg cgtccaccac tggtccaaa aagcacgacg tacgtccct catcggcagc  
4440  
cccggccgga cgttcccacc cgtgcacccg ctggatgtga tggccgacgc ccgggcactg  
4500  
gaacgtgcct gctacgagga gagcctgaag agccggccag ggaccgccag cagctcgggg  
4560

ggctccattg cgcgcggcgc cccggtcatt gtgcctgagc tgggtaagcc gcggcagagc  
4620  
ccctaacct atgaggacca cggggcaccc ttgcccggcc acctcccacg aggttcgccc  
4680  
gtgaccacgc gggagcccac gccgcgcctg caggagggca gcctttcgtc cagcaaggca  
4740  
tcccaggacc gaaagctgac gtcgacgcct cgtgagatcg ccaagtcccc gcacagcacc  
4800  
gtgcccagc accaccaca ccccatctcg ccctatgagc acctgcttcg gggcgtgagt  
4860  
ggcgtggacc tgtatcgag ccacatcccc ctggccttcg accccacctc cataccccgc  
4920  
ggcatccctc tggacgcagc cgctgcctac tacctgcccc gacacctggc cccaacccc  
4980  
acctaccgc acctgtacc accctacctc atccgggct accccgacac ggccggcgtg  
5040  
gagaaccggc agaccatcat caatgactac atcacctcg agcagatgca ccacaacag  
5100  
gccaccgcca tggcccagcg agctgatatg ctgaggggccc tctcgccccg cgagtccctg  
5160  
ctggcaactca actacgtgc gggccccga ggcatcatcg acctgtcca agtgccacac  
5220  
ctgcctgtgc tcgtgcccc gacaccaggc accccagcca ccgccatgga ccgccttgcc  
5280  
tacctcccca ccgcgcccc gcccttcagc agccgccaca gcagctcccc actctcccca  
5340  
ggaggtccaa cacacttgac aaaaccaacc accacgtcct cgtccgagcg ggagcgagac  
5400  
cgggatcgag agcgggaccg ggatcgggag cgggaaaagt ccacctcac gtccaccag  
5460  
acgggtggagc acgcacccat ctggagacct ggtacagagc agagcagcg cagcagcggc  
5520  
agcagcggcg ggggtggggg cagcagcagc cgcgccgct cccactccca tgcccaccag  
5580  
cactcgcca tctcccctcg gacccaggat gccctccagc agagaccag tgtgcttcac  
5640  
aacacaggca tgaagggtat catcacgct gtggagccca gcacgcccac ggtcctgagg  
5700  
tccacctca cctctcacc cgttcgccc gctgccacat tcccacctgc caccactgc  
5760  
ccactggcg gcacctcga tggggtctac cctacctca tggagcccgt cttgtgccc  
5820  
aaggaggccc cccgggtcgc ccggccagag cggccccgag cagacaccg ccctgccttc  
5880  
ctcgccaagc cccagcccc ctccgggctg gagccgcct cctccccag caagggtcg  
5940  
gagccccggc ccctagtgc tctgtctct ggccacgcca ccctcgccc caccctgcg  
6000  
aagaacctcg cacctacca cgcagcccc gaccgcggc cgcacctgc ctggcctcg  
6060  
gaccgcacc gggaaaagac tcaaagtaaa cccttttcca tccaggaact ggaactccgt  
6120  
tctctgggtt accacggcag cagctacag cccgaagggg tggagcccgt cagccctgtg  
6180

agctcaccca gtctgaccca cgacaagggg ctccccaagc acctggaaga gctcgacaag  
6240  
agccacctgg aggggggagct gcggcccaag cagccaggcc ccgtgaagct tggcggggag  
6300  
gccgcccacc tcccacacct gcggccgctg cctgagagcc agccctcgtc cagcccgtg  
6360  
ctccagaccg ccccaggggt caaagggtcac cagcgggtgg tcacctggc ccagcacatc  
6420  
agtgaaggta tcacacagga ctacaccgg caccaccac agcagctcag cgcacccctg  
6480  
cccgcceccc tctactcett ccctggggcc agctgccccg tcttgacct ccgcgcceca  
6540  
cccagtgacc tctacctccc gcccccgac catggtgccc cggcccgtgg ctccccccac  
6600  
agcgaagggg gcaagaggtc tccagagcca aacaagacgt cggctctggg tgggtgtgag  
6660  
gacggtattg aacctgtgtc ccaccggag ggcattgacg agccagggca ctcccggagt  
6720  
gctgtgtacc cgctgtgtga ccgggatggg gaacagacgg agcccagcag gatgggctcc  
6780  
aagtctccag gcaacaccag ccagccgcca gccttcttca gcaagctgac cgagagcaac  
6840  
tccgcatgg tcaagtccaa gaagcaagag atcaacaaga agctgaacac ccacaaccgg  
6900  
aatgagcctg aatacaatat cagccagcct gggacggaga tcttcaatat gcccgccatc  
6960  
accggaacag gccttatgac ctatagaagc caggcgggtg aggaacatgc cagcaccaac  
7020  
atggggctgg agggcataat tagaaaggca ctcatgggta aatatgacca gtgggaagag  
7080  
tcccgcgcgc tcagcgccaa tgcttttaac cctctgaatg ccagtgccag cctgcccgt  
7140  
gctatgcca taaccgctgc tgacggacgg agtgaccaca cactcacctc gccaggtggc  
7200  
ggcgggaagg ccaaggtctc tggcagacc agcagccgaa aagccaagtc cccggccccg  
7260  
ggcctggcat ctggggaccg gccaccctct gtctctcag tgcaactcga gggagactgc  
7320  
aaccgccga cgcgctcac caaccgctg tgggaggaca ggccctcgtc cgcaggttcc  
7380  
acgccattcc cttacaaccc cctgatcatg cggtgcagg cgggtgtcat ggcttcccc  
7440  
ccccaccgg gcctccccgc gggcagcggg cccctcgctg gccccacca cgctgggac  
7500  
gaggagccca agccactgct ctgctgcag tacgagacac tctccgacag cgagtgactc  
7560  
agaacagggc gggggggggc gggcgggtgc aggtccagc gagccacagg aacggccctg  
7620  
caggagcggg gcggctgccg actccccaa ccaaggaagg agccctgag tccgctgcg  
7680  
ctccatcca tctgtccgtc cagagccggc atccttgctt gtctaaagcc ttaactaaga  
7740  
ctccgccecc gggctggccc tgtgcagacc ttactcaggg gatgtttacc tgggtgctcg  
7800

gaagggaggg gaaggggccc gggagggggc acggcaggcg tgtggcagcc acacacaggg  
 7860  
 ggccagggcg gccagggacc caaagcagga tgaccacgca cctccacgcc actgcctccc  
 7920  
 ccgaatgcat ttggaaccaa agtctaaact gagctcgag cccccgcgcc ctccctccgc  
 7980  
 ctcccatccc gcttagcgct ctggacagat ggacgcaggg cctgtccagc cccagtgcg  
 8040  
 ctcgttctgg tccccacaga ctgccccagc caacgagatt gctggaaacc aagtcaggcc  
 8100  
 aggtggggcg acaaaagggc caggtgcggc ctggggggaa cggtatgctc gaggactgga  
 8160  
 ctgttttttt cacacatcgt tgccgcagcg gtgggaagga aaggcagatg taaatgatgt  
 8220  
 gttggtttac aggttatatt ttgatacct tcaatgaatt aattcagatg ttttacgcaa  
 8280  
 ggaaggactt acccagtatt actgctgctg tgcttttgat ctctgcttac cgttcaagag  
 8340  
 gcgtgtgcag gccgacagtc ggtgacccca tcactcgagc gaccaagggg gcggggactg  
 8400  
 ctggctcagc ccccgtgtg tcctccctcc ctcccttctt tgggcagaat gaattcgatg  
 8460  
 cgtattctgt ggccgccatt tgcgcagggt ggtggtattc tgtcatttac acacgtcgtt  
 8520  
 ctaattaaaa agcgaattat actccaaaaa aaaaaaaaaa aaaa  
 8564

<210> 676

<211> 2518

<212> PRT

<213> Homo sapiens

<400> 676

Met	Ser	Gly	Ser	Thr	Gln	Leu	Val	Ala	Gln	Thr	Trp	Arg	Ala	Thr	Glu
1				5					10					15	
Pro	Arg	Tyr	Pro	Pro	His	Ser	Leu	Ser	Tyr	Pro	Val	Gln	Ile	Ala	Arg
			20					25					30		
Thr	His	Thr	Asp	Val	Gly	Leu	Leu	Glu	Tyr	Gln	His	His	Ser	Arg	Asp
		35					40					45			
Tyr	Ala	Ser	His	Leu	Ser	Pro	Gly	Ser	Ile	Ile	Gln	Pro	Gln	Arg	Arg
		50				55					60				
Arg	Pro	Ser	Leu	Leu	Ser	Glu	Phe	Gln	Pro	Gly	Asn	Glu	Arg	Ser	Gln
65					70				75					80	
Glu	Leu	His	Leu	Arg	Pro	Glu	Ser	His	Ser	Tyr	Leu	Pro	Glu	Leu	Gly
			85					90					95		
Lys	Ser	Glu	Met	Glu	Phe	Ile	Glu	Ser	Lys	Arg	Pro	Arg	Leu	Glu	Leu
			100					105					110		
Leu	Pro	Asp	Pro	Leu	Leu	Arg	Pro	Ser	Pro	Leu	Leu	Ala	Thr	Gly	Gln
		115				120						125			
Pro	Ala	Gly	Ser	Glu	Asp	Leu	Thr	Lys	Asp	Arg	Ser	Leu	Thr	Gly	Lys
		130				135					140				
Leu	Glu	Pro	Val	Ser	Pro	Pro	Ser	Pro	Pro	His	Thr	Asp	Pro	Glu	Leu
145					150					155				160	
Glu	Leu	Val	Pro	Pro	Arg	Leu	Ser	Lys	Glu	Glu	Leu	Ile	Gln	Asn	Met



165 170 175  
 Asp Arg Val Asp Arg Glu Ile Thr Met Val Glu Gln Gln Ile Ser Lys  
 180 185 190  
 Leu Lys Lys Lys Gln Gln Gln Leu Glu Glu Glu Ala Ala Lys Pro Pro  
 195 200 205  
 Glu Pro Glu Lys Pro Val Ser Pro Pro Pro Ile Glu Ser Lys His Arg  
 210 215 220  
 Ser Leu Val Gln Ile Ile Tyr Asp Glu Asn Arg Lys Lys Ala Glu Ala  
 225 230 235 240  
 Ala His Arg Ile Leu Glu Gly Leu Gly Pro Gln Val Glu Leu Pro Leu  
 245 250 255  
 Tyr Asn Gln Pro Ser Asp Thr Arg Gln Tyr His Glu Asn Ile Lys Ile  
 260 265 270  
 Asn Gln Ala Met Arg Lys Lys Leu Ile Leu Tyr Phe Lys Arg Arg Asn  
 275 280 285  
 His Ala Arg Lys Gln Trp Glu Gln Lys Phe Cys Gln Arg Tyr Asp Gln  
 290 295 300  
 Leu Met Glu Ala Trp Glu Lys Lys Val Glu Arg Ile Glu Asn Asn Pro  
 305 310 315 320  
 Arg Arg Arg Ala Lys Glu Ser Lys Val Arg Glu Tyr Tyr Glu Lys Gln  
 325 330 335  
 Phe Pro Glu Ile Arg Lys Gln Arg Glu Leu Gln Glu Arg Met Gln Gly  
 340 345 350  
 Arg Val Gly Gln Arg Gly Ser Gly Leu Ser Met Ser Ala Ala Arg Ser  
 355 360 365  
 Glu His Glu Val Ser Glu Ile Ile Asp Gly Leu Ser Glu Gln Glu Asn  
 370 375 380  
 Leu Glu Lys Gln Met Arg Gln Leu Ala Val Ile Pro Pro Met Leu Tyr  
 385 390 395 400  
 Asp Ala Asp Gln Gln Arg Ile Lys Phe Ile Asn Met Asn Gly Leu Met  
 405 410 415  
 Ala Asp Pro Met Lys Val Tyr Lys Asp Arg Gln Val Met Asn Met Trp  
 420 425 430  
 Ser Glu Gln Glu Lys Glu Thr Phe Arg Glu Lys Phe Met Gln His Pro  
 435 440 445  
 Lys Asn Phe Gly Leu Ile Ala Ser Phe Leu Glu Arg Lys Thr Val Ala  
 450 455 460  
 Glu Cys Val Leu Tyr Tyr Tyr Leu Thr Lys Lys Asn Glu Asn Tyr Lys  
 465 470 475 480  
 Ser Leu Val Arg Arg Ser Tyr Arg Arg Arg Gly Lys Ser Gln Gln Gln  
 485 490 495  
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro  
 500 505 510  
 Met Pro Arg Ser Ser Gln Glu Glu Lys Asp Glu Lys Glu Lys Glu Lys  
 515 520 525  
 Glu Ala Glu Lys Glu Glu Glu Lys Pro Glu Val Glu Asn Asp Lys Glu  
 530 535 540  
 Asp Leu Leu Lys Glu Lys Thr Asp Asp Thr Ser Gly Glu Asp Asn Asp  
 545 550 555 560  
 Glu Lys Glu Ala Val Ala Ser Lys Gly Arg Lys Thr Ala Asn Ser Gln  
 565 570 575  
 Gly Arg Arg Lys Gly Arg Ile Thr Arg Ser Met Ala Asn Glu Ala Asn  
 580 585 590  
 Ser Glu Glu Ala Ile Thr Pro Gln Gln Ser Ala Glu Leu Ala Ser Met

595					600					605						
Glu	Leu	Asn	Glu	Ser	Ser	Arg	Trp	Thr	Glu	Glu	Glu	Glu	Met	Glu	Thr	Ala
610					615					620						
Lys	Lys	Gly	Leu	Leu	Glu	His	Gly	Arg	Asn	Trp	Ser	Ala	Ile	Ala	Arg	
625					630					635					640	
Met	Val	Gly	Ser	Lys	Thr	Val	Ser	Gln	Cys	Lys	Asn	Phe	Tyr	Phe	Asn	
645					650					655						
Tyr	Lys	Lys	Arg	Gln	Asn	Leu	Asp	Glu	Ile	Leu	Gln	Gln	His	Lys	Leu	
660					665					670						
Lys	Met	Glu	Lys	Glu	Arg	Asn	Ala	Arg	Arg	Lys	Lys	Lys	Lys	Ala	Pro	
675					680					685						
Ala	Ala	Ala	Ser	Glu	Glu	Ala	Ala	Phe	Pro	Pro	Val	Val	Glu	Asp	Glu	
690					695					700						
Glu	Met	Glu	Ala	Ser	Gly	Val	Ser	Gly	Asn	Glu	Glu	Glu	Met	Val	Glu	
705					710					715					720	
Glu	Ala	Glu	Ala	Leu	His	Ala	Ser	Gly	Asn	Glu	Val	Pro	Arg	Gly	Glu	
725					730					735						
Cys	Ser	Gly	Pro	Ala	Thr	Val	Asn	Asn	Ser	Ser	Asp	Thr	Glu	Ser	Ile	
740					745					750						
Pro	Ser	Pro	His	Thr	Glu	Ala	Ala	Lys	Asp	Thr	Gly	Gln	Asn	Gly	Pro	
755					760					765						
Lys	Pro	Pro	Ala	Thr	Leu	Gly	Ala	Asp	Gly	Pro	Pro	Pro	Gly	Pro	Pro	
770					775					780						
Thr	Pro	Pro	Arg	Arg	Thr	Ser	Arg	Ala	Pro	Ile	Glu	Pro	Thr	Pro	Ala	
785					790					795					800	
Ser	Glu	Ala	Thr	Gly	Ala	Pro	Thr	Pro	Pro	Pro	Ala	Pro	Pro	Ser	Pro	
805					810					815						
Ser	Ala	Pro	Pro	Pro	Val	Val	Pro	Lys	Glu	Glu	Lys	Glu	Glu	Thr		
820					825					830						
Ala	Ala	Ala	Pro	Pro	Val	Glu	Glu	Gly	Glu	Glu	Gln	Lys	Pro	Pro	Ala	
835					840					845						
Ala	Glu	Glu	Leu	Ala	Val	Asp	Thr	Gly	Lys	Ala	Glu	Glu	Pro	Val	Lys	
850					855					860						
Ser	Glu	Cys	Thr	Glu	Glu	Ala	Glu	Glu	Gly	Pro	Ala	Lys	Gly	Lys	Asp	
865					870					875					880	
Ala	Glu	Ala	Ala	Glu	Ala	Thr	Ala	Glu	Gly	Ala	Leu	Lys	Ala	Glu	Lys	
885					890					895						
Lys	Glu	Gly	Gly	Ser	Gly	Arg	Ala	Thr	Thr	Ala	Lys	Ser	Ser	Gly	Ala	
900					905					910						
Pro	Gln	Asp	Ser	Asp	Ser	Ser	Ala	Thr	Cys	Ser	Ala	Asp	Glu	Val	Asp	
915					920					925						
Glu	Ala	Glu	Gly	Gly	Asp	Lys	Asn	Arg	Leu	Leu	Ser	Pro	Arg	Pro	Ser	
930					935					940						
Leu	Leu	Thr	Pro	Thr	Gly	Asp	Pro	Arg	Ala	Asn	Ala	Ser	Pro	Gln	Lys	
945					950					955					960	
Pro	Leu	Asp	Leu	Lys	Gln	Leu	Lys	Gln	Arg	Ala	Ala	Ala	Ile	Pro	Pro	
965					970					975						
Ile	Gln	Val	Thr	Lys	Val	His	Glu	Pro	Pro	Arg	Glu	Asp	Ala	Ala	Pro	
980					985					990						
Thr	Lys	Pro	Ala	Pro	Pro	Ala	Pro	Pro	Pro	Pro	Gln	Asn	Leu	Gln	Pro	
995					1000					1005						
Glu	Ser	Asp	Ala	Pro	Gln	Gln	Pro	Gly	Ser	Ser	Pro	Arg	Gly	Lys	Ser	
1010					1015					1020						
Arg	Ser	Pro	Ala	Pro	Pro	Ala	Asp	Lys	Glu	Ala	Phe	Ala	Ala	Glu	Ala	

1025                      1030                      1035                      1040  
 Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr Ser Gly Leu Pro Phe  
                                  1045                      1050                      1055  
 Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser Pro His Ala Pro Asp  
                                  1060                      1065                      1070  
 Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His Pro Leu Pro Leu Gly  
                                  1075                      1080                      1085  
 Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg Pro Pro Thr Ile Ser  
                                  1090                      1095                      1100  
 Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Ser Val Leu Glu  
 1105                      1110                      1115                      1120  
 Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu His Val  
                                  1125                      1130                      1135  
 Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly Pro Val Thr Met Gly  
                                  1140                      1145                      1150  
 Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala Pro Phe Ser Gly Val  
                                  1155                      1160                      1165  
 Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala Gly Pro Pro Glu Ser  
                                  1170                      1175                      1180  
 Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val Leu Arg Gly Thr Ala  
 1185                      1190                      1195                      1200  
 Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys Gly Ile Pro Ser Thr  
                                  1205                      1210                      1215  
 Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg Gly Ser Ile Thr His  
                                  1220                      1225                      1230  
 Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr Ile Thr Arg Ile Ile  
                                  1235                      1240                      1245  
 Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly Arg Glu Asp Ser Leu  
                                  1250                      1255                      1260  
 Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys Gly His Val Leu Ser  
 1265                      1270                      1275                      1280  
 Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser Lys Glu Asp Gly Arg  
                                  1285                      1290                      1295  
 Ser Ser Ser Gly Pro Pro His Glu Thr Ala Ala Pro Lys Arg Thr Tyr  
                                  1300                      1305                      1310  
 Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile Ser Ser Ala Ser Ile  
                                  1315                      1320                      1325  
 Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu Arg His Ser Pro His  
                                  1330                      1335                      1340  
 His Leu Lys Glu Gln His His Ile Arg Gly Ser Ile Thr Gln Gly Ile  
 1345                      1350                      1355                      1360  
 Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr Leu Arg Arg Glu Ala  
                                  1365                      1370                      1375  
 Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro Pro Pro Ser Arg  
                                  1380                      1385                      1390  
 Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu Gly Pro Leu Lys Leu  
                                  1395                      1400                      1405  
 Lys Pro Ala His Glu Gly Leu Val Ala Thr Val Lys Glu Ala Gly Arg  
                                  1410                      1415                      1420  
 Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg His Thr Pro Glu Leu  
 1425                      1430                      1435                      1440  
 Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr  
                                  1445                      1450                      1455  
 Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr Gly Ser Lys Lys His

1460										1465										1470										
Asp	Val	Arg	Ser	Leu	Ile	Gly	Ser	Pro	Gly	Arg	Thr	Phe	Pro	Pro	Val															
1475										1480										1485										
His	Pro	Leu	Asp	Val	Met	Ala	Asp	Ala	Arg	Ala	Leu	Glu	Arg	Ala	Cys															
1490										1495										1500										
Tyr	Glu	Glu	Ser	Leu	Lys	Ser	Arg	Pro	Gly	Thr	Ala	Ser	Ser	Ser	Gly															
1505										1510										1515										
Gly	Ser	Ile	Ala	Arg	Gly	Ala	Pro	Val	Ile	Val	Pro	Glu	Leu	Gly	Lys															
1525										1530										1535										
Pro	Arg	Gln	Ser	Pro	Leu	Thr	Tyr	Glu	Asp	His	Gly	Ala	Pro	Phe	Ala															
1540										1545										1550										
Gly	His	Leu	Pro	Arg	Gly	Ser	Pro	Val	Thr	Thr	Arg	Glu	Pro	Thr	Pro															
1555										1560										1565										
Arg	Leu	Gln	Glu	Gly	Ser	Leu	Ser	Ser	Ser	Lys	Ala	Ser	Gln	Asp	Arg															
1570										1575										1580										
Lys	Leu	Thr	Ser	Thr	Pro	Arg	Glu	Ile	Ala	Lys	Ser	Pro	His	Ser	Thr															
1585										1590										1595										
Val	Pro	Glu	His	His	Pro	His	Pro	Ile	Ser	Pro	Tyr	Glu	His	Leu	Leu															
1605										1610										1615										
Arg	Gly	Val	Ser	Gly	Val	Asp	Leu	Tyr	Arg	Ser	His	Ile	Pro	Leu	Ala															
1620										1625										1630										
Phe	Asp	Pro	Thr	Ser	Ile	Pro	Arg	Gly	Ile	Pro	Leu	Asp	Ala	Ala	Ala															
1635										1640										1645										
Ala	Tyr	Tyr	Leu	Pro	Arg	His	Leu	Ala	Pro	Asn	Pro	Thr	Tyr	Pro	His															
1650										1655										1660										
Leu	Tyr	Pro	Pro	Tyr	Leu	Ile	Arg	Gly	Tyr	Pro	Asp	Thr	Ala	Ala	Leu															
1665										1670										1675										
Glu	Asn	Arg	Gln	Thr	Ile	Ile	Asn	Asp	Tyr	Ile	Thr	Ser	Gln	Gln	Met															
1685										1690										1695										
His	His	Asn	Thr	Ala	Thr	Ala	Met	Ala	Gln	Arg	Ala	Asp	Met	Leu	Arg															
1700										1705										1710										
Gly	Leu	Ser	Pro	Arg	Glu	Ser	Ser	Leu	Ala	Leu	Asn	Tyr	Ala	Ala	Gly															
1715										1720										1725										
Pro	Arg	Gly	Ile	Ile	Asp	Leu	Ser	Gln	Val	Pro	His	Leu	Pro	Val	Leu															
1730										1735										1740										
Val	Pro	Pro	Thr	Pro	Gly	Thr	Pro	Ala	Thr	Ala	Met	Asp	Arg	Leu	Ala															
1745										1750										1755										
Tyr	Leu	Pro	Thr	Ala	Pro	Gln	Pro	Phe	Ser	Ser	Arg	His	Ser	Ser	Ser															
1765										1770										1775										
Pro	Leu	Ser	Pro	Gly	Gly	Pro	Thr	His	Leu	Thr	Lys	Pro	Thr	Thr	Thr															
1780										1785										1790										
Ser	Ser	Ser	Glu	Arg	Glu	Arg	Asp	Arg	Asp	Arg	Glu	Arg	Asp	Arg	Asp															
1795										1800										1805										
Arg	Glu	Arg	Glu	Lys	Ser	Ile	Leu	Thr	Ser	Thr	Thr	Thr	Val	Glu	His															
1810										1815										1820										
Ala	Pro	Ile	Trp	Arg	Pro	Gly	Thr	Glu	Gln	Ser	Ser	Gly	Ser	Ser	Gly															
1825										1830										1835										
Ser	Ser	Gly	Gly	Gly	Gly	Gly	Ser	Ser	Ser	Arg	Pro	Ala	Ser	His	Ser															
1845										1850										1855										
His	Ala	His	Gln	His	Ser	Pro	Ile	Ser	Pro	Arg	Thr	Gln	Asp	Ala	Leu															
1860										1865										1870										
Gln	Gln	Arg	Pro	Ser	Val	Leu	His	Asn	Thr	Gly	Met	Lys	Gly	Ile	Ile															
1875										1880										1885										
Thr	Ala	Val	Glu	Pro	Ser	Thr	Pro	Thr	Val	Leu	Arg	Ser	Thr	Ser	Thr															

1890	1895	1900
Ser Ser Pro Val Arg	Pro Ala Ala Thr Phe	Pro Pro Ala Thr His Cys
1905	1910	1915
Pro Leu Gly Gly Thr	Leu Asp Gly Val Tyr	Pro Thr Leu Met Glu Pro
1925	1930	1935
Val Leu Leu Pro Lys	Glu Ala Pro Arg Val Ala Arg	Pro Glu Arg Pro
1940	1945	1950
Arg Ala Asp Thr Gly	His Ala Phe Leu Ala Lys	Pro Pro Ala Arg Ser
1955	1960	1965
Gly Leu Glu Pro Ala	Ser Ser Pro Ser Lys Gly	Ser Glu Pro Arg Pro
1970	1975	1980
Leu Val Pro Pro Val	Ser Gly His Ala Thr Ile	Ala Arg Thr Pro Ala
1985	1990	1995
Lys Asn Leu Ala Pro	His His Ala Ser Pro Asp	Pro Pro Ala Pro Pro
2005	2010	2015
Ala Ser Ala Ser Asp	Pro His Arg Glu Lys Thr	Gln Ser Lys Pro Phe
2020	2025	2030
Ser Ile Gln Glu Leu	Glu Leu Arg Ser Leu Gly Tyr	His Gly Ser Ser
2035	2040	2045
Tyr Ser Pro Glu Gly	Val Glu Pro Val Ser Pro	Val Ser Ser Pro Ser
2050	2055	2060
Leu Thr His Asp Lys	Gly Leu Pro Lys His Leu	Glu Glu Leu Asp Lys
2065	2070	2075
Ser His Leu Glu Gly	Glu Leu Arg Pro Lys Gln	Pro Gly Pro Val Lys
2085	2090	2095
Leu Gly Gly Glu Ala	Ala His Leu Pro His Leu	Arg Pro Leu Pro Glu
2100	2105	2110
Ser Gln Pro Ser Ser	Ser Pro Leu Leu Gln Thr	Ala Pro Gly Val Lys
2115	2120	2125
Gly His Gln Arg Val	Val Thr Leu Ala Gln His	Ile Ser Glu Val Ile
2130	2135	2140
Thr Gln Asp Tyr Thr	Arg His His Pro Gln Gln	Leu Ser Ala Pro Leu
2145	2150	2155
Pro Ala Pro Leu Tyr	Ser Phe Pro Gly Ala Ser	Cys Pro Val Leu Asp
2165	2170	2175
Leu Arg Arg Pro Pro	Ser Asp Leu Tyr Leu Pro	Pro Pro Asp His Gly
2180	2185	2190
Ala Pro Ala Arg Gly	Ser Pro His Ser Glu Gly	Gly Lys Arg Ser Pro
2195	2200	2205
Glu Pro Asn Lys Thr	Ser Val Leu Gly Gly Gly	Glu Asp Gly Ile Glu
2210	2215	2220
Pro Val Ser Pro Pro	Glu Gly Met Thr Glu Pro	Gly His Ser Arg Ser
2225	2230	2235
Ala Val Tyr Pro Leu	Leu Tyr Arg Asp Gly Glu	Gln Thr Glu Pro Ser
2245	2250	2255
Arg Met Gly Ser Lys	Ser Pro Gly Asn Thr Ser	Gln Pro Pro Ala Phe
2260	2265	2270
Phe Ser Lys Leu Thr	Glu Ser Asn Ser Ala Met	Val Lys Ser Lys Lys
2275	2280	2285
Gln Glu Ile Asn Lys	Lys Leu Asn Thr His Asn	Arg Asn Glu Pro Glu
2290	2295	2300
Tyr Asn Ile Ser Gln	Pro Gly Thr Glu Ile Phe	Asn Met Pro Ala Ile
2305	2310	2315
Thr Gly Thr Gly Leu	Met Thr Tyr Arg Ser Gln	Ala Val Gln Glu His

	2325		2330		2335
Ala Ser Thr Asn Met Gly Leu Glu Ala Ile Ile Arg Lys Ala Leu Met					
	2340		2345		2350
Gly Lys Tyr Asp Gln Trp Glu Glu Ser Pro Pro Leu Ser Ala Asn Ala					
	2355		2360		2365
Phe Asn Pro Leu Asn Ala Ser Ala Ser Leu Pro Ala Ala Met Pro Ile					
	2370		2375		2380
Thr Ala Ala Asp Gly Arg Ser Asp His Thr Leu Thr Ser Pro Gly Gly					
	2385		2390		2395
Gly Gly Lys Ala Lys Val Ser Gly Arg Pro Ser Ser Arg Lys Ala Lys					2400
		2405	2410		2415
Ser Pro Ala Pro Gly Leu Ala Ser Gly Asp Arg Pro Pro Ser Val Ser					
	2420		2425		2430
Ser Val His Ser Glu Gly Asp Cys Asn Arg Arg Thr Pro Leu Thr Asn					
	2435		2440		2445
Arg Val Trp Glu Asp Arg Pro Ser Ser Ala Gly Ser Thr Pro Phe Pro					
	2450		2455		2460
Tyr Asn Pro Leu Ile Met Arg Leu Gln Ala Gly Val Met Ala Ser Pro					
	2465		2470		2475
Pro Pro Pro Gly Leu Pro Ala Gly Ser Gly Pro Leu Ala Gly Pro His					2480
		2485	2490		2495
His Ala Trp Asp Glu Glu Pro Lys Pro Leu Leu Cys Ser Gln Tyr Glu					
	2500		2505		2510
Thr Leu Ser Asp Ser Glu					
	2515				

&lt;210&gt; 677

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 677

gtaatgcaag gtgaacgccc aatggctgcg cagaacaaga gcattgggtca gttcaccctt  
 60  
 gaggggtatag ctccggcacg ccgtgggtgtt ccacagattg aagttacttt cgatatacat  
 120  
 gccaacggta tcttgaatgt gagcgcaaag gataaggcta ccggttaagga acagaagatt  
 180  
 cgcatacgaag cttcaagtgg tttgagtcag gaagaaatcg acagaatgaa agctgaggca  
 240  
 gaacagaatg cagcagcagg caaggctgaa cgcgaaaaga ttgataagct gaaccaagct  
 300  
 gactcaatga tttccccccc cgaaaactcc tgaaagacaa cgatn  
 345

&lt;210&gt; 678

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 678

Val Met Gln Gly Glu Arg Pro Met Ala Ala Gln Asn Lys Ser Ile Gly			
1	5	10	15
Gln Phe Thr Leu Glu Gly Ile Ala Pro Ala Arg Arg Gly Val Pro Gln			

```

      20      25      30
Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser
      35      40      45
Ala Lys Asp Lys Ala Thr Gly Lys Glu Gln Lys Ile Arg Ile Glu Ala
      50      55      60
Ser Ser Gly Leu Ser Gln Glu Glu Ile Asp Arg Met Lys Ala Glu Ala
      65      70      75      80
Glu Gln Asn Ala Ala Ala Gly Lys Ala Glu Arg Glu Lys Ile Asp Lys
      85      90      95
Leu Asn Gln Ala Asp Ser Met Ile Ser Pro Pro Glu Asn Ser
      100      105      110

```

<210> 679  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

```

<400> 679
acgcgtgacg tcaccgctcc atggggaaga tgacgactat ccctgtgaaa gtaaagcata
60
atgggaaaaa tgtacgttaa atgtgctaac gcgcagtatg atgtatctat gaatcttgag
120
ggtacaggcc tggatttcaa gcgtgccatt gctgacgtca cgcattgtgcc acccgaacgc
180
caaaaagtac tcatcaaggg aggattgcta aaagacgata cccattagg taaagtgggt
240
gcgcgtgcag gacagcagtt catggtgctg ggtgctgtgg gtgagctgcc caaggcccca
300
gaaaaacctg tgctgttcct ggaggatttg ccggaagacg agctcaacaa ggctaaggat
360
cc
362

```

<210> 680  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

```

<400> 680
Met Gly Lys Met Tyr Val Lys Cys Ala Asn Ala Gln Tyr Asp Val Ser
1      5      10      15
Met Asn Leu Glu Gly Thr Gly Leu Asp Phe Lys Arg Ala Ile Ala Asp
      20      25      30
Val Thr His Val Pro Pro Glu Arg Gln Lys Val Leu Ile Lys Gly Gly
      35      40      45
Leu Leu Lys Asp Asp Thr Pro Leu Gly Lys Val Gly Ala Arg Ala Gly
      50      55      60
Gln Gln Phe Met Val Leu Gly Ala Val Gly Glu Leu Pro Lys Ala Pro
      65      70      75      80
Glu Lys Pro Val Leu Phe Leu Glu Asp Leu Pro Glu Asp Glu Leu Asn
      85      90      95
Lys Ala Lys Asp
      100

```

<210> 681  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 681  
 acgcgtccaa atggacaaac gcttgatgat ttctaccatg aaattagagc aaaatatcca  
 60  
 gaacaattac tgatggcaga ctgttcaaca gtagaagaaa tgattcacgc tgatgaactc  
 120  
 ggttttgatt ttatcggaag tacttttagta ggatatacaa aacaaagtaa aggtgacaaa  
 180  
 atcgaagaaa atgactttga aatcttgaga acagtttttag aacgaattaa acatccacta  
 240  
 attgcagaag gcaatatcga tacacctgaa aagggtgaaac gtgtgcttga gttaggcgcg  
 300  
 tatagtgtcg ttgtagggtc agcgattact cgtccacaac tcatcacgaa aaaattt  
 357

<210> 682  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 682  
 Thr Arg Pro Asn Gly Gln Thr Leu Asp Asp Phe Tyr His Glu Ile Arg  
 1 5 10 15  
 Ala Lys Tyr Pro Glu Gln Leu Leu Met Ala Asp Cys Ser Thr Val Glu  
 20 25 30  
 Glu Met Ile His Ala Asp Glu Leu Gly Phe Asp Phe Ile Gly Ser Thr  
 35 40 45  
 Leu Val Gly Tyr Thr Lys Gln Ser Lys Gly Asp Lys Ile Glu Glu Asn  
 50 55 60  
 Asp Phe Glu Ile Leu Arg Thr Val Leu Glu Arg Ile Lys His Pro Leu  
 65 70 75 80  
 Ile Ala Glu Gly Asn Ile Asp Thr Pro Glu Lys Val Lys Arg Val Leu  
 85 90 95  
 Glu Leu Gly Ala Tyr Ser Val Val Val Gly Ser Ala Ile Thr Arg Pro  
 100 105 110  
 Gln Leu Ile Thr Lys Lys Phe  
 115

<210> 683  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 683  
 ntctccgacc gcgtggtaaa actggcgacc ttaattgctg aagatgagca agctgaaatg  
 60  
 aatattgttt tgccccgacg gtgggttgcatt gattgcgtca gttaccctaa aaaccatgta  
 120  
 ttaagagcac aaagtgcatt acatgcagca gataaagcga ttgtattttt gcgcagtatt  
 180



aattacccca aacaatactt attagcaatt catcatgcaa tttcagcgca cagtgtcagt  
 240  
 ggtaaaatac aggcaatgag tttagaagct caaatagtgc aagatgcaga tagattggat  
 300  
 gcgctagggg caattggcgt ggctcgttgc attcaagtaa gtagccagtt acagcgccca  
 360  
 ctatattctg aagttgaccc cttcagcgag acacgatctc tagtctgcat g  
 411

<210> 684

<211> 137

<212> PRT

<213> Homo sapiens

<400> 684

Xaa	Ser	Asp	Arg	Val	Val	Lys	Leu	Ala	Thr	Leu	Ile	Ala	Glu	Asp	Glu
1				5					10				15		
Gln	Ala	Glu	Met	Asn	Ile	Val	Leu	Pro	Ala	Ala	Trp	Leu	His	Asp	Cys
			20				25					30			
Val	Ser	Tyr	Pro	Lys	Asn	His	Val	Leu	Arg	Ala	Gln	Ser	Ala	Leu	His
		35				40					45				
Ala	Ala	Asp	Lys	Ala	Ile	Val	Phe	Leu	Arg	Ser	Ile	Asn	Tyr	Pro	Lys
	50					55				60					
Gln	Tyr	Leu	Leu	Ala	Ile	His	His	Ala	Ile	Ser	Ala	His	Ser	Val	Ser
65					70				75				80		
Gly	Lys	Ile	Gln	Ala	Met	Ser	Leu	Glu	Ala	Gln	Ile	Val	Gln	Asp	Ala
			85					90					95		
Asp	Arg	Leu	Asp	Ala	Leu	Gly	Ala	Ile	Gly	Val	Ala	Arg	Cys	Ile	Gln
			100				105						110		
Val	Ser	Ser	Gln	Leu	Gln	Arg	Pro	Leu	Tyr	Ser	Glu	Val	Asp	Pro	Phe
		115				120						125			
Ser	Glu	Thr	Arg	Ser	Leu	Val	Cys	Met							
		130				135									

<210> 685

<211> 417

<212> DNA

<213> Homo sapiens

<400> 685

acgcgttgcg ttgcggagtg aacccggaac gatggatgga ttgacactat tcggcctgtt  
 60  
 cgccgtcact gcgatgctgg tctgctatgc catggaggac cgcagccact ggttcgtgct  
 120  
 gctgttcgcg gccgcttggc gctcggttcg gcctacggct tctccaagg cgcttgccg  
 180  
 ttgcgcttcg tcgaggcgat atgggcgctc gttgcctgcg gcgtggtgga cgatcaggcc  
 240  
 gcgatgaccg catcgctccg ctttaagccc gaaacgaaac cgaccagtgc gctggtttga  
 300  
 tgggcggcgc gtcgctggat gcacagcgtc tcgacgcgag cgtgatgatg gcctcagcgc  
 360  
 gtgcatgccg acgtgtcgc tcatcgcgct acgtcgcacc acggcgcgcg gcaatag  
 417

<210> 686  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 686  
 Met Pro Trp Arg Thr Ala Ala Thr Gly Ser Cys Cys Cys Ser Arg Pro  
 1 5 10 15  
 Leu Gly Ala Arg Phe Gly Leu Arg Leu Pro Pro Arg Arg Leu Ala Val  
 20 25 30  
 Arg Leu Arg Arg Gly Asp Met Gly Ala Arg Cys Leu Arg Arg Gly Gly  
 35 40 45  
 Arg Ser Gly Arg Asp Asp Arg Ile Val Arg Leu Lys Pro Gly Asn Glu  
 50 55 60  
 Thr Asp Gln Cys Ala Gly Leu Met Gly Gly Ala Ser Leu Asp Ala Gln  
 65 70 75 80  
 Arg Leu Asp Ala Ser Val Met Met Ala Ser Ala Arg Ala Cys Arg Arg  
 85 90 95  
 Cys Arg Ser Ser Arg Tyr Ala Arg Pro Arg Arg Ala Ala Ile  
 100 105 110

<210> 687  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 687  
 nnacgcgtga ccgaccaact gcgagccacc ctgctcgcca tggtgctat ggggttgac  
 60  
 gacggcatcg atattccgtc tggggcgatt attgaaagct gccgcacatt atcagccggt  
 120  
 ctcatgaaa cccacgggtg tcgcacgatc gagcttcggg taccacctgc gtgcgcggtt  
 180  
 caattggcgg ccattgagtc gggccccaac caccaccggg gcaactccgcc caatgtggcc  
 240  
 gagaccgacc ctgtcacatt cctgcagttg gcaactggct tctcacactg gccagaaatg  
 300  
 cgctcagcag gacgggttca ggcgtctgga tcccacgtcg acgacgttgc tggcgtgttc  
 360  
 ccagtcggtg atatggccgg ggttttccgc gacatttttg ccgacgacta ga  
 412

<210> 688  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 688  
 Xaa Arg Val Thr Asp Gln Leu Arg Ala Thr Leu Leu Ala Met Ala Ala  
 1 5 10 15  
 Met Gly Leu His Asp Gly Ile Asp Ile Pro Ser Gly Ala Ile Ile Glu  
 20 25 30  
 Ser Cys Arg Thr Leu Ser Ala Val Leu Asp Glu Thr His Gly Gly Arg

```

      35              40              45
Thr Ile Glu Leu Arg Val Pro Pro Ala Cys Ala Val Gln Leu Ala Ala
  50              55              60
Ile Glu Ser Gly Pro Asn His His Arg Gly Thr Pro Pro Asn Val Ala
  65              70              75              80
Glu Thr Asp Pro Val Thr Phe Leu Gln Leu Ala Thr Gly Phe Ser His
      85              90              95
Trp Pro Glu Met Arg Ser Ala Gly Arg Val Gln Ala Ser Gly Ser His
      100              105              110
Val Asp Asp Val Ala Gly Val Phe Pro Val Val Asp Met Ala Gly Val
      115              120              125
Phe Arg Asp Ile Phe Ala Asp Asp
      130              135

```

&lt;210&gt; 689

&lt;211&gt; 499

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 689

```

cgcgtcgcgg tactcgacgt cgattttcat cacggtaacg gcaccagaa cattttttac
60
ccgcgcaatg acgtgatgtt catatcgctg cacggcgagc cggccgtgtc ctatccctac
120
tattcgggggt tcagcgatga agtcggcgca ggtgttggcg aagggttcaa cctcaactac
180
ccgctgccga aaaacaccgc ctgggatacc taccgcgacg ccctgctgca tgctgcagg
240
aaactccagc aattctcgcc gcaggatttg gtgatctcac tgggggtcga caccttcaag
300
gacgaccgca tcagtcactt cctgctggaa ggcgaggatt tcatcgggat cggcgagctg
360
atagcgagtg tgggttgccc caccctgttt gtgatggaag gcggctatat ggtcgatgaa
420
atcggaatca acgcggtgaa cgtactgcat ggcttcgaga gcaagcgcgc ttgagcatcc
480
gccgaagac ggcgtgata
499

```

&lt;210&gt; 690

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 690

```

Arg Val Ala Val Leu Asp Val Asp Phe His His Gly Asn Gly Thr Gln
  1              5              10              15
Asn Ile Phe Tyr Pro Arg Asn Asp Val Met Phe Ile Ser Leu His Gly
      20              25              30
Glu Pro Ala Val Ser Tyr Pro Tyr Tyr Ser Gly Phe Ser Asp Glu Val
      35              40              45
Gly Ala Gly Val Gly Glu Gly Phe Asn Leu Asn Tyr Pro Leu Pro Lys
      50              55              60
Asn Thr Ala Trp Asp Thr Tyr Arg Asp Ala Leu Leu His Ala Cys Arg

```

65		70		75		80									
Lys	Leu	Gln	Gln	Phe	Ser	Pro	Gln	Val	Leu	Val	Ile	Ser	Leu	Gly	Val
			85						90					95	
Asp	Thr	Phe	Lys	Asp	Asp	Pro	Ile	Ser	His	Phe	Leu	Leu	Glu	Gly	Glu
		100					105						110		
Asp	Phe	Ile	Gly	Ile	Gly	Glu	Leu	Ile	Ala	Ser	Val	Gly	Cys	Pro	Thr
		115					120					125			
Leu	Phe	Val	Met	Glu	Gly	Gly	Tyr	Met	Val	Asp	Glu	Ile	Gly	Ile	Asn
		130				135					140				
Ala	Val	Asn	Val	Leu	His	Gly	Phe	Glu	Ser	Lys	Arg	Ala			
145				150						155					

&lt;210&gt; 691

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 691

```

ntgctgctg aaaacgtgca gcgcggcgca tcagcgactg gcgagcgctt tggctggagt
60
tcgcaaaggc aaggccctg ggagttggcc tgcgacatcg cgctgccgtg cgccaccag
120
aacgaactgg acgcgcagcg cgcgcgcacg ctgctgcgca acggctgcct ttgctggct
180
ggaggcgcgca atatgccgcc cgcgcttgag gctgtggata tctttatcga ggcgggcatt
240
ctgttcgcgc ccggcaaggc atccaatgcc ggcggcgtgg ccgtgagtgg cctggaaatg
300
tcgcagaacg ccatgcgcct gctgtggacc gccggc
336

```

&lt;210&gt; 692

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 692

Xaa	Leu	Arg	Glu	Asn	Val	Gln	Arg	Gly	Ala	Ser	Ala	Thr	Gly	Glu	Arg
1				5				10					15		
Phe	Gly	Trp	Ser	Ser	Gln	Arg	Gln	Gly	Pro	Trp	Glu	Leu	Ala	Cys	Asp
		20					25					30			
Ile	Ala	Leu	Pro	Cys	Ala	Thr	Gln	Asn	Glu	Leu	Asp	Ala	Asp	Ala	Ala
		35				40					45				
Arg	Thr	Leu	Leu	Arg	Asn	Gly	Cys	Leu	Cys	Val	Ala	Gly	Gly	Ala	Asn
	50				55			60							
Met	Pro	Pro	Ala	Leu	Glu	Ala	Val	Asp	Ile	Phe	Ile	Glu	Ala	Gly	Ile
65				70				75				80			
Leu	Phe	Ala	Pro	Gly	Lys	Ala	Ser	Asn	Ala	Gly	Gly	Val	Ala	Val	Ser
			85					90				95			
Gly	Leu	Glu	Met	Ser	Gln	Asn	Ala	Met	Arg	Leu	Leu	Trp	Thr	Ala	Gly
		100					105					110			

&lt;210&gt; 693

&lt;211&gt; 580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 693

ngggcaaccc ggaaggtccg gcgtcccagc cgcctacctc gctgggaccc tggctcttgc  
 60  
 gtcccccgct ggcctcctgc ccaagcgact gcggccagga tgggccggaa ggtgaccgtg  
 120  
 gccacctgcg cactcaacca gtgggccctg gacttcgagg gcaatttgca aagaatttta  
 180  
 aagagtattg aaattgcaa aaacagagga gcaagataca ggcttggacc agagctggaa  
 240  
 atatgaggct gcggatgttg ggatcattat tacgagtcgg acaccctctt gcactcgttt  
 300  
 caagtccatg cggcccttgt ggagtctccc gtcactcagg acatcatctg cgacgtgggg  
 360  
 atacctgtaa tgcaccgaaa cgtccgctac aactgcagag tgatattcct caacaggaag  
 420  
 atcctgctca tcagaccaa gatggccttg gccaatgaag gcaactaccg cgagctgcgc  
 480  
 tggttcaccc cgtggtcgag gagtcggtga gtcgggtgcc tgaccactcc tgggatgtgc  
 540  
 gttaagcacc tccgctgtgt gtagccttgg gtctgatca  
 580

&lt;210&gt; 694

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 694

Met	Gly	Arg	Lys	Val	Thr	Val	Ala	Thr	Cys	Ala	Leu	Asn	Gln	Trp	Ala
1				5				10					15		
Leu	Asp	Phe	Glu	Gly	Asn	Leu	Gln	Arg	Ile	Leu	Lys	Ser	Ile	Glu	Ile
		20					25					30			
Ala	Lys	Asn	Arg	Gly	Ala	Arg	Tyr	Arg	Leu	Gly	Pro	Glu	Leu	Glu	Ile
		35				40					45				
Cys	Gly	Cys	Gly	Cys	Trp	Asp	His	Tyr	Tyr	Glu	Ser	Asp	Thr	Leu	Leu
	50				55					60					
His	Ser	Phe	Gln	Val	Leu	Ala	Ala	Leu	Val	Glu	Ser	Pro	Val	Thr	Gln
	65			70					75					80	
Asp	Ile	Ile	Cys	Asp	Val	Gly	Ile	Pro	Val	Met	His	Arg	Asn	Val	Arg
			85				90						95		
Tyr	Asn	Cys	Arg	Val	Ile	Phe	Leu	Asn	Arg	Lys	Ile	Leu	Leu	Ile	Arg
		100					105					110			
Pro	Lys	Met	Ala	Leu	Ala	Asn	Glu	Gly	Asn	Tyr	Arg	Glu	Leu	Arg	Trp
		115				120						125			
Phe	Thr	Pro	Trp	Ser	Arg	Ser	Arg								
	130					135									

&lt;210&gt; 695

&lt;211&gt; 439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 695

ntgggtgactc aggcgtccaa tggcacgatg gctgacgtcg tcaatatgcc gtcctcgacc  
60  
atcatggctc tgctcagggc tgattacctg ctcgatatcg agacttcggt gcccggtatc  
120  
ggcgacaagt tcgtcccga cgtctggggc aaactcaaac tcggcaagga caacgagcac  
180  
accgctctgc cctgggtactt cgccccgttc gtcgtgacgt acaacaagga cattttcaag  
240  
gatgttgcc tcgatcccga aatcccgcg aagacgatga ccgagtacct cgacttcgcc  
300  
aagaaaatca ccgctgccgg caagcaggcg gtctatggca acacgtcgtg gtacatgctc  
360  
gcggaatggc gtgccctcgg cgtcaaggtc atgaatgacg acttcaccaa gttcactttt  
420  
gcctcggaat ccaacgcgt  
439

&lt;210&gt; 696

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 696

Xaa	Val	Thr	Gln	Ala	Ser	Asn	Gly	Thr	Met	Ala	Asp	Val	Val	Asn	Met
1			5				10				15				
Pro	Ser	Ser	Thr	Ile	Met	Ala	Leu	Ser	Arg	Ala	Asp	Tyr	Leu	Leu	Asp
			20				25				30				
Ile	Glu	Thr	Ser	Val	Pro	Gly	Ile	Gly	Asp	Lys	Phe	Val	Pro	Asp	Val
	35					40					45				
Trp	Gly	Lys	Leu	Lys	Leu	Gly	Lys	Asp	Asn	Glu	His	Thr	Ala	Leu	Pro
	50				55					60					
Trp	Tyr	Phe	Gly	Pro	Phe	Val	Val	Thr	Tyr	Asn	Lys	Asp	Ile	Phe	Lys
65					70				75				80		
Asp	Val	Gly	Leu	Asp	Pro	Glu	Ile	Pro	Pro	Lys	Thr	Met	Thr	Glu	Tyr
			85				90						95		
Leu	Asp	Phe	Ala	Lys	Lys	Ile	Thr	Ala	Ala	Gly	Lys	Gln	Ala	Val	Tyr
		100					105					110			
Gly	Asn	Thr	Ser	Trp	Tyr	Met	Leu	Ala	Glu	Trp	Arg	Ala	Leu	Gly	Val
	115					120					125				
Lys	Val	Met	Asn	Asp	Asp	Phe	Thr	Lys	Phe	Thr	Phe	Ala	Ser	Glu	Ser
	130					135					140				
Asn	Ala														
145															

&lt;210&gt; 697

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 697

nggcaataac gccgtcgtcg aaatccgttc ccttgatctc gaacatgccg atgaagcggg  
60

tgtcgggtgat ggggtcggag atgtcgccct cccacaactt gaacttgatc ggaccaaccc  
 120  
 ttccaccctt ggagagactc gctgccttg aaagtcttct tgcccttctt gggcaactga  
 180  
 tcgccctccc gaacgagata atccaagctc aagcgaccgc ccaccttgtc gcgcgcctcc  
 240  
 acaccgaagg aatgcgatgc cgggatcgca tcgatgctag cggcgggtgc tgcaatgaca  
 300  
 atcttgtctt cagcgagcga tacgggcccgc ccgttggaat cgaacacaaa caccttgaag  
 360  
 gcgttgtn  
 368

<210> 698

<211> 108

<212> PRT

<213> Homo sapiens

<400> 698

Met	Pro	Met	Lys	Arg	Leu	Ser	Val	Met	Gly	Ser	Glu	Met	Ser	Pro	Ser
1			5					10					15		
His	Asn	Leu	Asn	Leu	Ile	Gly	Pro	Thr	Leu	Ser	Thr	Leu	Glu	Arg	Leu
		20					25					30			
Ala	Cys	Leu	Glu	Ser	Leu	Leu	Ala	Leu	Leu	Gly	Gln	Leu	Ile	Ala	Leu
		35				40					45				
Pro	Asn	Glu	Ile	Ile	Gln	Ala	Gln	Ala	Thr	Ala	His	Leu	Val	Ala	Arg
	50				55					60					
Leu	His	Thr	Asp	Gly	Met	Arg	Cys	Arg	Asp	Arg	Ile	Asp	Ala	Ser	Gly
65			70						75				80		
Gly	Ala	Cys	Asn	Asp	Asn	Leu	Val	Phe	Thr	Gln	Arg	Tyr	Gly	Pro	Ala
			85					90					95		
Val	Gly	Ile	Glu	His	Lys	His	Leu	Glu	Gly	Val	Val				
			100					105							

<210> 699

<211> 363

<212> DNA

<213> Homo sapiens

<400> 699

nacgcgtaca caaatagtat cggaatcatt tcctatcatg ctgctatgac gagattttctc  
 60  
 cacacctcag attggcaact ggggatgact cggcactacc tgtcgaagcg cggcgacgac  
 120  
 gaccacaggg caccgtttac tgccgatcga atcgagacgg tgcgcaggct gggcgacggt  
 180  
 gcccggaagg agggctgcga gtttgcgctc gtcgccggag atgtcttcga aaccacaaat  
 240  
 gtctccactc agatcattgc ccgcgcgtgt gaggcgatag cctccattga tctccccgtg  
 300  
 tacctgctgc ccggaatatc cgacagctta gagccggggg gtctctggga tgggccagaa  
 360  
 ttc  
 363

<210> 700  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 700  
 Xaa Ala Tyr Thr Asn Ser Ile Gly Ile Ile Ser Tyr His Ala Ala Met  
 1 5 10 15  
 Thr Arg Phe Leu His Thr Ser Asp Trp Gln Leu Gly Met Thr Arg His  
 20 25 30  
 Tyr Leu Ser Lys Arg Gly Asp Asp Pro Gln Ala Arg Phe Thr Ala  
 35 40 45  
 Asp Arg Ile Glu Thr Val Arg Arg Leu Gly Asp Val Ala Arg Lys Glu  
 50 55 60  
 Gly Cys Glu Phe Val Val Val Ala Gly Asp Val Phe Glu Thr His Asn  
 65 70 75 80  
 Val Ser Thr Gln Ile Ile Ala Arg Ala Cys Glu Ala Ile Ala Ser Ile  
 85 90 95  
 Asp Leu Pro Val Tyr Leu Leu Pro Gly Asn His Asp Ser Leu Glu Pro  
 100 105 110  
 Gly Cys Leu Trp Asp Gly Pro Glu Phe  
 115 120

<210> 701  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 701  
 nacgcgtccg ggcacaccgt caccgaggcg acgttccacg gccaccccccac gctgatctat  
 60  
 ttccggtacg tccattgcgc ggatgtctgc ccgtgacac tgggcaacat ggtctcggcc  
 120  
 ctccgatcgcc tgggctcccg ggcggacggc atcgttccga tcttcatctc cgtccgatccg  
 180  
 gcccgcgaca caccgcgct ggtcggacag tatgtcgcgc atttctcgcc gcggatcgtc  
 240  
 gggctgaccg gcaccgcagc gcagctggcg ccggtactgg cggagttcca catcaccgcg  
 300  
 cgcgcgaac ctgcggcaca cgacatggcc gccgacatgt atgccgtcga ccacagcgcc  
 360  
 ctctctatc tgatggacgg caacaaccgc ctgttgccgg tgatggcggt cagcgccgac  
 420  
 gctgcctcgc tgacgcacca gctggcggcc ggctggccg gggcaagaat gagaccatga  
 480  
 aagcgatcgg accgacggac gccccgaac aggcagcgcc gggctggctg ttcggcatca  
 540  
 tctgtctgct cggcatcgcc ggcattgctg atttcgtcga ccggt  
 585

<210> 702  
 <211> 159  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 702

Xaa Ala Ser Gly His Thr Val Thr Glu Ala Thr Phe His Gly His Pro  
 1 5 10 15  
 Thr Leu Ile Tyr Phe Gly Tyr Val His Cys Ala Asp Val Cys Pro Leu  
 20 25 30  
 Thr Leu Gly Asn Met Val Ser Ala Leu Asp Arg Leu Gly Ser Arg Ala  
 35 40 45  
 Asp Gly Ile Val Pro Ile Phe Ile Ser Val Asp Pro Ala Arg Asp Thr  
 50 55 60  
 Pro Ala Leu Val Gly Gln Tyr Val Ala His Phe Ser Pro Arg Ile Val  
 65 70 75 80  
 Gly Leu Thr Gly Thr Ala Ala Gln Leu Ala Pro Val Leu Ala Glu Phe  
 85 90 95  
 His Ile Thr Ala Arg Ala Glu Pro Ala Ala His Asp Met Ala Ala Asp  
 100 105 110  
 Met Tyr Ala Val Asp His Ser Ala Leu Leu Tyr Leu Met Asp Gly Asn  
 115 120 125  
 Asn Arg Leu Leu Arg Val Met Ala Val Ser Ala Asp Ala Ala Ser Leu  
 130 135 140  
 Thr His Gln Leu Ala Ala Gly Leu Ala Gly Ala Arg Met Arg Pro  
 145 150 155

&lt;210&gt; 703

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 703

ttctctgctc catacacacc tcagcagaat ggcatcgccg agcgcaagaa cataactctt  
 60  
 attgagatgg cccgaacgat gcttgatgag tacaagactc cgcggaagtt ctggcctgaa  
 120  
 gccattgata ctgcttgatc caccatcaac cgcgtttatc ttcacaaggt tttggagaaa  
 180  
 acctcttatg agttcctaac tggtaagaaa cccaatgtaa gctatttcag agtatttggt  
 240  
 gctaggtgct ggatcaagga tctcatcac acttcaaaat ttgcaccgaa agcacatgaa  
 300  
 gggtttatgc ttggttacgg aaaggattcg cactcctaca gagtcttcaa cctctttcac  
 360  
 tataaagtgg ttcaaactgt ggatgtgcgn  
 390

&lt;210&gt; 704

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 704

Phe Ser Ala Pro Tyr Thr Pro Gln Gln Asn Gly Ile Ala Glu Arg Lys  
 1 5 10 15  
 Asn Ile Thr Leu Ile Glu Met Ala Arg Thr Met Leu Asp Glu Tyr Lys

```

      20      25      30
Thr Pro Arg Lys Phe Trp Pro Glu Ala Ile Asp Thr Ala Cys His Thr
      35      40      45
Ile Asn Arg Val Tyr Leu His Lys Val Leu Glu Lys Thr Ser Tyr Glu
      50      55      60
Phe Leu Thr Gly Lys Lys Pro Asn Val Ser Tyr Phe Arg Val Phe Gly
65      70      75      80
Ala Arg Cys Trp Ile Lys Asp Pro His His Thr Ser Lys Phe Ala Pro
      85      90      95
Lys Ala His Glu Gly Phe Met Leu Gly Tyr Gly Lys Asp Ser His Ser
      100      105      110
Tyr Arg Val Phe Asn Leu Phe His Tyr Lys Val Val Gln Thr Val Asp
      115      120      125
Val Arg
      130

```

<210> 705  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

```

<400> 705
acgcgtattt cgtccaaatg attcaaatac aaacgccgcc gttaaaaacg atgcaggcga
60
agacaatgcg aataaaaaag gtggtaaata agcatgagtt ttaaaatgac acaatctcaa
120
tacacaagtc tttatggacc aactgtagga gactccgtga gattaggaga tacgaacttg
180
tttgcacaaag ttgagaaaga ctatgcaaata tatggggatg aagctacttt cgggtggcgga
240
aaatcaattc gtgatgggat ggctcaaaat cctaattgta caagagatga taaaaatgta
300
gccgatttag ttttaactaa cgcattaatt attgattatg acaagattgt taaagcagat
360
atcgggtatta aaaatgggta tatttttaag attggtaaag ctggaaaccc agatataatg
420
gataacggtg acatcatcat tgggtgaaca actgatatta ttgctgctga aggtaaaatt
480
gttactgccg gcggtatcga tacacacgtg cac
513

```

<210> 706  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 706
Met Ser Phe Lys Met Thr Gln Ser Gln Tyr Thr Ser Leu Tyr Gly Pro
1      5      10      15
Thr Val Gly Asp Ser Val Arg Leu Gly Asp Thr Asn Leu Phe Ala Gln
      20      25      30
Val Glu Lys Asp Tyr Ala Asn Tyr Gly Asp Glu Ala Thr Phe Gly Gly
      35      40      45
Gly Lys Ser Ile Arg Asp Gly Met Ala Gln Asn Pro Asn Val Thr Arg

```

```

      50              55              60
Asp Asp Lys Asn Val Ala Asp Leu Val Leu Thr Asn Ala Leu Ile Ile
65              70              75              80
Asp Tyr Asp Lys Ile Val Lys Ala Asp Ile Gly Ile Lys Asn Gly Tyr
      85              90              95
Ile Phe Lys Ile Gly Lys Ala Gly Asn Pro Asp Ile Met Asp Asn Val
      100              105              110
Asp Ile Ile Ile Gly Ala Thr Thr Asp Ile Ile Ala Ala Glu Gly Lys
      115              120              125
Ile Val Thr Ala Gly Gly Ile Asp Thr His Val His
      130              135              140

```

&lt;210&gt; 707

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 707

```

acgcgtggca tcctcagacc accaaagaca atcctgtcct gggaggcagg gagaaagccg
60
gcacactaca cagtgcacag gtgaagccct caggggggtcc tggagcaggg ccacctccct
120
gggggatccc caggtgccat tttcatggca gtgtctatgg acggctcccc ttggcatggg
180
gctgggtggc aatcctggct gtagctgcc accccgccc tttttgcttc cctccgaggg
240
cattgtgatc atcagtgtga gtctgttggg aaggagagcc aggtccccag gtttgggaaa
300
ggagtagggg ttcccagcct gtctggccat cccccccag ccagcccct cctgctgggt
360
gacgtgtca gttcggcccc tgctgtactg ggaggggggt aggagcata
409

```

&lt;210&gt; 708

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 708

```

Met Leu Leu Ala Pro Ser Gln Tyr Ser Arg Gly Arg Thr Glu His Val
1              5              10              15
Thr Gln Gln Glu Gly Leu Gly Trp Gly Val Met Ala Arg Gln Ala Gly
      20              25              30
Lys Pro Tyr Ser Phe Pro Lys Pro Gly Asp Leu Ala Leu Leu Pro Asn
      35              40              45
Arg Leu Thr Leu Met Ile Thr Met Pro Ser Glu Gly Ser Lys Lys Gly
      50              55              60
Arg Gly Trp Gln Leu Gln Pro Gly Leu Pro Pro Ser Thr Met Pro Arg
65              70              75              80
Gly Ala Val His Arg His Cys His Glu Asn Gly Thr Trp Gly Ser Pro
      85              90              95
Arg Glu Val Ala Leu Leu Gln Asp Pro Leu Arg Ala Ser Pro Val His
      100              105              110
Cys Val Val Cys Arg Leu Ser Pro Cys Leu Pro Gly Gln Asp Cys Leu

```

115 120 125  
 Trp Trp Ser Glu Asp Ala Thr Arg  
 130 135

<210> 709  
 <211> 771  
 <212> DNA  
 <213> Homo sapiens

<400> 709  
 acgcgtctga cggagagcct cctgagtcct cccacgcaga ggactcagaa agggaaatcgg  
 60  
 tgaccacacc tgggccagcg acgtgtggtg cgccagcctc cccagcggat cacctcctcc  
 120  
 tccccctcca ggaggagagt ttctccgaag tccccatgag tgaagcaagc tcagcgaaaag  
 180  
 acactccact ctttaggatg gagggagagg atgcccttgt gactcagtat cagagcaaag  
 240  
 ccagtgaacca cgaaggttta ttgtctgacc ccttgagtga ccttcagttg gtctcagatt  
 300  
 ttaaatctcc aatcatggcc gatctgaact taagccttcc ttccattcct gaagtcgcat  
 360  
 cggatgatga aagaatagat caggttgaag atgacggaga tcaggttgaa gatgatggag  
 420  
 agacagcaaa gtcgtcaact ctggacatag gagctttgtc cttgggcttg gtagtccctc  
 480  
 gtctgagag gggaaagggg cccagtggcg aggcagatag gttggtactg ggggagggcc  
 540  
 tgtgtgattt caggctgcaa gcaccccagg catctgtgac agctccttca gagcagacca  
 600  
 cagagttcgg aattcacaaa ccacatcttg gcaagagctc aagcttggat aaacagctgc  
 660  
 caggccccag tgggtggtgag gaagaaaaac cgatgggaaa tgggagtcca agccccctc  
 720  
 ctggcacatc cctggacaat cctgtacca gccctctccc ttctgagatc t  
 771

<210> 710  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 710  
 Met Ser Glu Ala Ser Ser Ala Lys Asp Thr Pro Leu Phe Arg Met Glu  
 1 5 10 15  
 Gly Glu Asp Ala Leu Val Thr Gln Tyr Gln Ser Lys Ala Ser Asp His  
 20 25 30  
 Glu Gly Leu Leu Ser Asp Pro Leu Ser Asp Leu Gln Leu Val Ser Asp  
 35 40 45  
 Phe Lys Ser Pro Ile Met Ala Asp Leu Asn Leu Ser Leu Pro Ser Ile  
 50 55 60  
 Pro Glu Val Ala Ser Asp Asp Glu Arg Ile Asp Gln Val Glu Asp Asp  
 65 70 75 80  
 Gly Asp Gln Val Glu Asp Asp Gly Glu Thr Ala Lys Ser Ser Thr Leu

```

      85              90              95
Asp Ile Gly Ala Leu Ser Leu Gly Leu Val Val Pro Cys Pro Glu Arg
      100              105              110
Gly Lys Gly Pro Ser Gly Glu Ala Asp Arg Leu Val Leu Gly Glu Gly
      115              120              125
Leu Cys Asp Phe Arg Leu Gln Ala Pro Gln Ala Ser Val Thr Ala Pro
      130              135              140
Ser Glu Gln Thr Thr Glu Phe Gly Ile His Lys Pro His Leu Gly Lys
      145              150              155              160
Ser Ser Ser Leu Asp Lys Gln Leu Pro Gly Pro Ser Gly Gly Glu Glu
      165              170              175
Glu Lys Pro Met Gly Asn Gly Ser Pro Ser Pro Pro Pro Gly Thr Ser
      180              185              190
Leu Asp Asn Pro Val Pro Ser Pro Ser Pro Ser Glu Ile
      195              200              205

```

&lt;210&gt; 711

&lt;211&gt; 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 711

```

nnggatccga cggcgcaaag ccttaatgaa gggtaggcag ttacctcttt ttctgtagga
60
attctcctgt tttatatcta ctcccccta gggttcacct actccctcat cttctgagct
120
aatgtgcccc ctttatttgc acttgcatgg aatatgatta tgaacacagt tttatcatt
180
gatgaccacc ccgttatcag gttggcgatt cgtatgttgt tggaacacga ggggtataag
240
gtcgttggtg aaacggacaa cggttgtgac gcgatccaaa tggttcgga atgcctgccg
300
gacctgatca tcttgatat cagcatcccc aaactcgacg gcctcgaagt gctctgccga
360
ttcaacgcca tgaacacatc catgaaaacc ctgattctta ccgccagag tccgacgttg
420
ttcgccacgc gt
432

```

&lt;210&gt; 712

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 712

```

Met Ile Met Asn Thr Val Phe Ile Ile Asp Asp His Pro Val Ile Arg
  1              5              10              15
Leu Ala Ile Arg Met Leu Leu Glu His Glu Gly Tyr Lys Val Val Gly
      20              25              30
Glu Thr Asp Asn Gly Cys Asp Ala Ile Gln Met Val Arg Glu Cys Leu
      35              40              45
Pro Asp Leu Ile Ile Leu Asp Ile Ser Ile Pro Lys Leu Asp Gly Leu
      50              55              60
Glu Val Leu Cys Arg Phe Asn Ala Met Asn Thr Ser Met Lys Thr Leu

```



<210> 715  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 715  
 nnaccggtgg atgccaacga atactgtggc gagctgaaag tcggcgccat caccaccgcc  
 60  
 cagaccggcc tgctgcctca ggcactggtg cgtttgccgc aggcagcgcc gacggtggag  
 120  
 tgcaagtggg taccgggggt ttccctggag ttgctcagcc aggtggacgc aggcgagctg  
 180  
 gactcggcga tcattcattcg cccgcccttt gatttgccca aggagttgca cgtacaggta  
 240  
 ctgcgcaagg agccgtttgt gttgatcgtg cccagggcgg tcgggggtga tgaccggtg  
 300  
 caactgctcg aagctcatcc ccacgtgcgc tacgaccgcg cttcgttttg cggg  
 354

<210> 716  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 716  
 Xaa Pro Val Asp Ala Asn Glu Tyr Arg Gly Glu Leu Lys Val Gly Ala  
 1 5 10 15  
 Ile Thr Thr Ala Gln Thr Gly Leu Leu Pro Gln Ala Leu Val Arg Leu  
 20 25 30  
 Arg Gln Ala Ala Pro Thr Val Glu Cys Lys Leu Val Pro Gly Val Ser  
 35 40 45  
 Leu Glu Leu Leu Ser Gln Val Asp Ala Gly Glu Leu Asp Ser Ala Ile  
 50 55 60  
 Ile Ile Arg Pro Pro Phe Asp Leu Pro Lys Glu Leu His Val Gln Val  
 65 70 75 80  
 Leu Arg Lys Glu Pro Phe Val Leu Ile Val Pro Gln Ala Val Gly Gly  
 85 90 95  
 Asp Asp Pro Leu Gln Leu Leu Glu Ala His Pro His Val Arg Tyr Asp  
 100 105 110  
 Arg Ala Ser Phe Gly Gly  
 115

<210> 717  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 717  
 acgcgtatct ttteggtaaa cctactaatt ttctattcaa cgctcgacgc ccaggtaaag  
 60  
 ccgttaagtc atctaaatag gccattctgt ggctctccat cagtaagaac caaatccata  
 120  
 ggagaagttg agcggatagt aatgcatcaa attgatgctg agaaaccgaa aaatgggaca  
 180

atataatcaa gctgacaata ctgatcaaac cactcgcatg aaagctacta ccgcttgacc  
 240  
 accaagcaga aaaaaccaat gaaatgctta aaaataaaat cgtccaaagt aaaaagctag  
 300  
 accagggtggg agccagatta aaaataggcc gctctagaaa atgaaaagaa atccaatgag  
 360  
 attcaacggc gtagcaccag cacagcaaca tagccactag t  
 401

<210> 718

<211> 130

<212> PRT

<213> Homo sapiens

<400> 718

Met	Leu	Leu	Cys	Trp	Cys	Tyr	Ala	Val	Glu	Ser	His	Trp	Ile	Ser	Phe
1			5					10					15		
His	Phe	Leu	Glu	Arg	Pro	Ile	Phe	Asn	Leu	Ala	Thr	Thr	Trp	Ser	Ser
		20					25					30			
Phe	Leu	Leu	Trp	Thr	Ile	Leu	Phe	Leu	Ser	Ile	Ser	Leu	Val	Phe	Ser
	35					40					45				
Ala	Trp	Trp	Ser	Ser	Gly	Ser	Ser	Phe	His	Ala	Ser	Gly	Leu	Ile	Ser
	50				55					60					
Ile	Val	Ser	Leu	Ile	Ile	Leu	Ser	His	Phe	Ser	Val	Ser	Gln	His	Gln
65				70					75				80		
Phe	Asp	Ala	Leu	Leu	Ser	Ala	Gln	Leu	Leu	Leu	Trp	Ile	Trp	Phe	Leu
		85						90			95				
Leu	Met	Glu	Ser	His	Arg	Met	Ala	Tyr	Leu	Asp	Asp	Leu	Thr	Ala	Leu
		100					105				110				
Pro	Gly	Arg	Arg	Ala	Leu	Asn	Glu	Lys	Leu	Val	Gly	Leu	Pro	Lys	Arg
		115				120					125				
Tyr	Ala														
	130														

<210> 719

<211> 685

<212> DNA

<213> Homo sapiens

<400> 719

tatatagggc tatctacctt attcacagca cattccatct acacaacctt gtagcggttca  
 60  
 ctcttgaagg cggattttca taggcgctgc gcctctcata ttcaagcatc aaggcaatcc  
 120  
 aatctccctg cgttggtaac tgggcaaaag aaagacctct gcagtccagc aacctcatcg  
 180  
 tgcaaatgcc gtggcgtggg caactctgac ggcttggaag ctgcagacct tgtcaaagga  
 240  
 cctcgccga aattcacctt tgatctcttt gtcttggtcca actcttggtcc ctgagaatga  
 300  
 aactgtcttc tgagagtcca tcaatgcgac gctgactcgt gagaagtgtc gaatcacgtc  
 360  
 gccattttgg agacctgcca acgcagctct ggaacctgcc aggacgcctt ccacaacacc  
 420



agaacgcagc gactttgcgt taaatccaag ctcaaacacc tcttgctcca caggcctgag  
 480  
 cataaaaaagg tattctgcga cgggaaatgt aaagtctgag cttaggtgca gactaccgcc  
 540  
 atcgatcagt gtctgatact gcttgctccgc gacttctttg ccgagcaatg ggtatagcgt  
 600  
 tttcaaccaa gtggaagcag tcgtttgctc accctggcga ttccggcgag ttagggacat  
 660  
 gaccacgtca tcgatgggat tttgc  
 685

<210> 720

<211> 161

<212> PRT

<213> Homo sapiens

<400> 720

Met	Ser	Leu	Thr	Arg	Arg	Asn	Arg	Gln	Gly	Glu	Gln	Thr	Thr	Ala	Ser
1				5				10						15	
Thr	Trp	Leu	Lys	Thr	Leu	Tyr	Pro	Leu	Leu	Gly	Lys	Glu	Val	Ala	Asp
			20					25						30	
Lys	Gln	Tyr	Gln	Thr	Leu	Ile	Asp	Gly	Gly	Thr	Leu	His	Leu	Ser	Ser
			35					40						45	
Asp	Phe	Thr	Phe	Pro	Val	Ala	Glu	Tyr	Leu	Phe	Met	Leu	Arg	Pro	Val
	50						55				60				
Glu	Gln	Glu	Val	Phe	Glu	Leu	Gly	Phe	Asn	Ala	Lys	Ser	Leu	Arg	Ser
65					70					75				80	
Gly	Val	Val	Glu	Gly	Val	Leu	Ala	Gly	Ser	Arg	Ala	Ala	Leu	Ala	Gly
			85						90					95	
Leu	Gln	Asn	Gly	Asp	Val	Ile	Gln	His	Phe	Ser	Arg	Val	Ser	Val	Ala
			100					105						110	
Leu	Met	Asp	Ser	Gln	Lys	Thr	Val	Ser	Phe	Ser	Gly	Thr	Arg	Val	Gly
	115						120					125			
Gln	Asp	Lys	Glu	Ile	Lys	Gly	Glu	Phe	Arg	Pro	Arg	Ser	Phe	Asp	Lys
	130					135					140				
Val	Cys	Ser	Phe	Gln	Ala	Val	Arg	Val	Asp	His	Ala	Thr	Ala	Phe	Ala
145				150						155				160	
Arg															

<210> 721

<211> 579

<212> DNA

<213> Homo sapiens

<400> 721

aagcttgga tcaggggtgtg gcagtgtggc gggagtgtgg aggtcctgcc ctgctcacgg  
 60  
 attgccaca ttgagcgagc ccacaagccc tacacagagg acctcaccgc ccatgtccgc  
 120  
 aggaacgctc tcaggggtggc tgaagtctgg atggatgaat ttaaaagcca cgtctactgg  
 180  
 catggaacat accaggagga ctcaggaatt gacattgggg acatcactgc aaggaaggct  
 240

ctcaggaaac agctgcagtg caagaccttc cgggtggtacc tggtcagcgt gtacccagag  
 300  
 atgaggatgt actccgacat cattgcctat ggagtgtctgc agaattctct gaagactgat  
 360  
 ttgtgtcttg accagggggcc agatacagag aatgtcccca tcatgtacat ctgccatggg  
 420  
 atgacgcctc agaacgtgta ctacacgagc agtcagcaga tccatgtggg cattctgagc  
 480  
 cccaccgtgg atgatgatga caaccgatgc ctggtggacg tcaacagccg gccccggctc  
 540  
 atcgaatgca gctacgcca agccaagagg atgaagctt  
 579

<210> 722

<211> 193

<212> PRT

<213> Homo sapiens

<400> 722

Lys	Leu	Gly	Ile	Arg	Val	Trp	Gln	Cys	Gly	Gly	Ser	Val	Glu	Val	Leu
1				5					10					15	
Pro	Cys	Ser	Arg	Ile	Ala	His	Ile	Glu	Arg	Ala	His	Lys	Pro	Tyr	Thr
			20					25					30		
Glu	Asp	Leu	Thr	Ala	His	Val	Arg	Arg	Asn	Ala	Leu	Arg	Val	Ala	Glu
		35					40					45			
Val	Trp	Met	Asp	Glu	Phe	Lys	Ser	His	Val	Tyr	Trp	His	Gly	Thr	Tyr
	50					55					60				
Gln	Glu	Asp	Ser	Gly	Ile	Asp	Ile	Gly	Asp	Ile	Thr	Ala	Arg	Lys	Ala
65					70				75					80	
Leu	Arg	Lys	Gln	Leu	Gln	Cys	Lys	Thr	Phe	Arg	Trp	Tyr	Leu	Val	Ser
			85						90					95	
Val	Tyr	Pro	Glu	Met	Arg	Met	Tyr	Ser	Asp	Ile	Ile	Ala	Tyr	Gly	Val
		100						105					110		
Leu	Gln	Asn	Ser	Leu	Lys	Thr	Asp	Leu	Cys	Leu	Asp	Gln	Gly	Pro	Asp
		115					120					125			
Thr	Glu	Asn	Val	Pro	Ile	Met	Tyr	Ile	Cys	His	Gly	Met	Thr	Pro	Gln
	130					135					140				
Asn	Val	Tyr	Tyr	Thr	Ser	Ser	Gln	Gln	Ile	His	Val	Gly	Ile	Leu	Ser
145				150					155					160	
Pro	Thr	Val	Asp	Asp	Asp	Asp	Asn	Arg	Cys	Leu	Val	Asp	Val	Asn	Ser
			165					170					175		
Arg	Pro	Arg	Leu	Ile	Glu	Cys	Ser	Tyr	Ala	Lys	Ala	Lys	Arg	Met	Lys
			180					185					190		
Leu															

<210> 723

<211> 384

<212> DNA

<213> Homo sapiens

<400> 723

acgcgtccctc ttacgctcag ttttgacaat gcgtgctggc agccaaccga agccgtaaaa  
 60

ctcaacgaaa tgctctcgct taaaccgtgc gaaggaaccc caccgcaatg gcgcttattc  
 120  
 cgcggaagggg attaccaaat gcgcattgat acgcgctccg gaacgcctac gctgatgctt  
 180  
 accgtacaaa gtgtaaccga caaacctggt acggacgtca ctgcacaatg tcctaaatgg  
 240  
 gacggcaagc ccctcaccct tgacgtaacg aatacattcc cggaaggctc cgtcgtacga  
 300  
 gacttctaca gcaagcaaac cgctatgggt cagcaaggta aaatcacact tcagcctgcc  
 360  
 gctaacagca atggcctgct gctg  
 384

<210> 724

<211> 128

<212> PRT

<213> Homo sapiens

<400> 724

Thr	Arg	Pro	Leu	Thr	Leu	Ser	Phe	Asp	Asn	Ala	Cys	Trp	Gln	Pro	Thr
1			5					10					15		
Glu	Ala	Val	Lys	Leu	Asn	Glu	Met	Leu	Ser	Leu	Lys	Pro	Cys	Glu	Gly
		20				25					30				
Thr	Pro	Pro	Gln	Trp	Arg	Leu	Phe	Arg	Glu	Gly	Asp	Tyr	Gln	Met	Arg
	35				40					45					
Ile	Asp	Thr	Arg	Ser	Gly	Thr	Pro	Thr	Leu	Met	Leu	Thr	Val	Gln	Ser
	50				55				60						
Val	Thr	Asp	Lys	Pro	Val	Thr	Asp	Val	Thr	Arg	Gln	Cys	Pro	Lys	Trp
65			70					75					80		
Asp	Gly	Lys	Pro	Leu	Thr	Leu	Asp	Val	Thr	Asn	Thr	Phe	Pro	Glu	Gly
		85				90						95			
Ser	Val	Val	Arg	Asp	Phe	Tyr	Ser	Lys	Gln	Thr	Ala	Met	Val	Gln	Gln
		100				105					110				
Gly	Lys	Ile	Thr	Leu	Gln	Pro	Ala	Ala	Asn	Ser	Asn	Gly	Leu	Leu	Leu
	115					120						125			

<210> 725

<211> 521

<212> DNA

<213> Homo sapiens

<400> 725

tcattgacttg ctttattgca gtggtctgga actgttggat ggaacgaatt ttatctagag  
 60  
 cctggtgaac agcttcccag gtgtgcattt agggcctcct agggatcatc aaagttttta  
 120  
 gaaaataggt ttccttcttc cacaggcatg gagaaggaag gaaattttgc actggccttt  
 180  
 gggaagctga agaagagctg gggggaggct tggtotgaca aaatagtac tctctccctg  
 240  
 cttgaaatgt cccacagaag gctgtttctg gttcacattt gcccctctag gtccactccc  
 300  
 tccccttcat cctgctcact gccagagaga ctatgctggg agtggtgcat cggtggtctc  
 360

caggcccttt taggctcaag gtgttcattc cctggtcctt tccctgccat gtctttgttc  
 420  
 ctctctcct ccttcccatc ccagcagcca cctctcctt tccaccagac ctgggaacca  
 480  
 tcattcccaac cacaatcacc ccgtggttct attacacgcy t  
 521

<210> 726

<211> 124

<212> PRT

<213> Homo sapiens

<400> 726

Met	Glu	Lys	Glu	Gly	Asn	Phe	Ala	Leu	Ala	Phe	Gly	Lys	Leu	Lys	Lys
1				5				10					15		
Ser	Trp	Gly	Glu	Ala	Cys	Ser	Asp	Lys	Ile	Val	Thr	Leu	Ser	Leu	Leu
		20						25				30			
Glu	Met	Ser	His	Arg	Arg	Leu	Phe	Leu	Val	His	Ile	Cys	Pro	Ser	Arg
		35					40					45			
Ser	Thr	Pro	Ser	Pro	Ser	Ser	Cys	Ser	Leu	Pro	Glu	Arg	Leu	Cys	Trp
	50					55				60					
Glu	Trp	Cys	Ile	Gly	Gly	Leu	Gln	Ala	Leu	Leu	Gly	Ser	Arg	Cys	Ser
65				70						75				80	
Phe	Pro	Gly	Ser	Phe	Pro	Ala	Met	Ser	Leu	Phe	Leu	Pro	Pro	Ser	Phe
			85						90					95	
Pro	Ser	Gln	Gln	Pro	Pro	Ser	Ser	Phe	His	Gln	Thr	Trp	Glu	Pro	Ser
		100						105					110		
Ser	Gln	Pro	Gln	Ser	Pro	Arg	Gly	Ser	Ile	Thr	Arg				
		115					120								

<210> 727

<211> 629

<212> DNA

<213> Homo sapiens

<400> 727

naccggtgtt cgtcccaact ccggtgtcta cgcccgacg aaccagattg gtgctccggc  
 60  
 tctgttgctt gacggcacgg tggctcagga ctgatctcg ggaaccttgg cgactcgcg  
 120  
 tgccattatc gacgctggtg agttgaaggc tccgacgcat cgggcgtttg cgtcaatcag  
 180  
 tgccgccccg cagcaggtcc aaggagaact cgaatgaatc cgaatgacta cctgggtgct  
 240  
 tcggcgatct tgttcgctat cggcatcgtg ggcttctga cgaggcgtaa tgccttggtg  
 300  
 gcctttatgt cgggtggagtt gatgctcaac gccgcgaacc tggcgctggt gactttcgct  
 360  
 caggtacacg gctctctcga cggacaggtc ggggttttct tcgtgatgat cgtggcagcc  
 420  
 gctgaggtgg ttgtcggttt ggcgatcatc gtcactatct tccgttcccg tcgcaccact  
 480  
 tcggtggacg acaccaacct gctgaagttc tgagggaggt accgtgactg tcttgaaac  
 540

cggtctgttc aacgtggcct ggctcatgat tgcggtgcca ctggtggttg ccgcgctgct  
600  
attggtgctg ggacgccgca gcgacgcgt  
629

<210> 728  
<211> 99  
<212> PRT  
<213> Homo sapiens

<400> 728  
Met Asn Pro Asn Asp Tyr Leu Val Leu Ser Ala Ile Leu Phe Ala Ile  
1 5 10 15  
Gly Ile Val Gly Phe Leu Thr Arg Arg Asn Ala Leu Val Ala Phe Met  
20 25 30  
Ser Val Glu Leu Met Leu Asn Ala Ala Asn Leu Ala Leu Val Thr Phe  
35 40 45  
Ala His Val His Gly Ser Leu Asp Gly Gln Val Gly Val Phe Phe Val  
50 55 60  
Met Ile Val Ala Ala Ala Glu Val Val Val Gly Leu Ala Ile Ile Val  
65 70 75 80  
Thr Ile Phe Arg Ser Arg Arg Thr Thr Ser Val Asp Asp Thr Asn Leu  
85 90 95  
Leu Lys Phe

<210> 729  
<211> 4716  
<212> DNA  
<213> Homo sapiens

<400> 729  
nnaggagaga agaaattgaa aagcaggcac ttgagaagtc taagagaagc ttaagacgt  
60  
ttaaggaaat gctgcaggac agggaatccc aaaatcaaaa gtctacagtt ccgtcaagaa  
120  
ggagaatgta ttcttttgat gatgtgctgg aggaaggaaa gcgacccctt acaatgactg  
180  
tgtcagaagc aagttaccag agtgagagag tagaagagaa gggagcaact tattcttcag  
240  
aaattcccaa agaagattct accacttttg caaaaagaga ggaccctgtt aacaactgaa  
300  
attcagcttc cttctcaaag tcctgtggaa gaacaaagcc cagcctcttt gtcttctctg  
360  
cgttcacgga gcacacaaat ggaatcaact cgtgtttcag cttctctccc cagaagttac  
420  
cggaaaactg atacagtcag gttaacatct gtggtcacac caagaccctt tggtctcag  
480  
acaaggggaa tctcatcact cccagatct tacacgatgg atgatgcttg gaagtataat  
540  
ggagatgttg aagacattaa gagaactcca aacaatgttg tcagcaccctt tgcaccaagc  
600  
ccggacgcaa gccaaactggc ttcaagctta tctagccaga aagaggttagc agcaacagaa  
660

gaagatgtga caaggetgcc ctctectaca tcccccttct catctcttct ccaagaccag  
720  
gctgccactt ctaaagccac attgtcttcc acatctgggc ttgatttaat gtctgaatct  
780  
ggagaagggg aaatctcccc acaaagagaa gtctcaagat cccaggatca gttcagtgat  
840  
atgagaatca gcataaacca gacgcctggg aagagtcttg actttgggtt tacaataaaa  
900  
tggtgatattc ctgggatctt cgtagcatca gttgaagcag gtagcccagc agaattttct  
960  
cagctacaag tagatgatga aattattgct attaacaaca ccaagtttct atataacgat  
1020  
tcaaaaagag gggaggaagc catggctaag gctcaagaaa ctggacacct agtgatggat  
1080  
gtgaggcgct atggaaaggc tggttcacct gaaacaaagt ggattgatgc aacttctgga  
1140  
atttacaact cagaaaaatc ttcaaactca tctgtaacaa ctgatttctc cgaaagcctt  
1200  
cagagtctta atattgaatc caaagaaatc aatggaattc atgatgaaag caatgctttt  
1260  
gaatcaaaaag catctgaatc catttctttg aaaaacttaa aaaggcgatc acaatttttt  
1320  
gaacaaggaa gctctgattc ggtggttctt gatcttccag ttccaacat cagtgtccccg  
1380  
agtcgctggg tgtgggatca agaggaggag cggaagcggc aggagagggtg gcagaaggag  
1440  
caggaccgcc tactgcagga aaaatatcaa cgtgagcagg agaaactgag ggaagagtgg  
1500  
caaagggcc aacaggaggc agagagagag aattccaagt acttgatga ggaactgatg  
1560  
gtcctaagct caaacagcat gtctctgacc acacgggagc cctctcttgc cacctgggaa  
1620  
gctacctgga gtgaagggc caagtcttca gacagagaag gaacccgagc aggagaagag  
1680  
gagaggagac agccacaaga ggaagtgtt catgaggacc aaggaaagaa gccgcaggat  
1740  
cagcttggtta ttgagagaga gaggaaatgg gagcaacagc ttcaggaaga gcaagagcaa  
1800  
aagcggcttc aggtgagggc tgaggagcag aagcgtcttg cggaggagca gaagcgccag  
1860  
gcagagatag agcgggaaac atcagtcaga atataccagt acaggaggcc tgttgattcc  
1920  
tatgatatac caaagacaga agaagcatct tcagggtttc ttctggtga caggaataaa  
1980  
tccagatcta ctactgaact ggatgattac tccacaaata aaaatggaaa caataaatat  
2040  
ttagaccaa ttgggaacac gacctcttca cagaggagat ccaagaaaga acaagtacca  
2100  
tcaggagcag aattggagag gcaacaaatc cttcaggaaa tgaggaagag aacacccctt  
2160  
cacaatgaca acagctggat ccgacagcgc agtgccagtg tcaacaaaga gcctgttagt  
2220  
cttctggtga tcatgagaag aggcgaatct ttagataacc tggactcccc ccgatccaat  
2280

tcttgagac agcctccttg gctcaatcag cccacaggat tctatgcttc ttcctctgtg  
2340  
caagacttta gtcgccacc acctcagctg gtgtccacat caaacctgctc ctacatgagg  
2400  
aaccctcctt ccagcgtgcc cccaccttca gctggtccg tgaagacctc caccacagg  
2460  
gtggccacca cacagtcccc caccctcgaga agccattccc cttcagcttc acagtcaggc  
2520  
tctcagctgc gtaacaggctc agtcagtggg aagcgcatac gctcctactg caataacatt  
2580  
ctgggcaaag gagccgccat gatcatcgag tccctgggtc tttgttatca tttgcattgt  
2640  
tttaagtgtg ttgctgtga gtgtgacctc ggaggctctt cctcaggagg tgaagtcagg  
2700  
atcagaaacc accaactgta ctgcaacgac tgctatctca gattcaaac tggacggcca  
2760  
accgccatgt gatgtaagcc tccatacgaa agcactgttg cagatagaag aagagggtgt  
2820  
tgctgctcat gtagatctat aaatatgtgt tgtatgtctt ttttgccttt ttttttaaaa  
2880  
aaaagaataa ctttttttgc ctcttttagat tacatagaag cattgtagtc ttggtagaac  
2940  
cagtattttt gttgtttatt tataaggtaa ttgtgtgtgg ggaaaagtgc agtattttacc  
3000  
tggtgaattc agcatcttga gagcacaagg gaaaaataa gaacctacga atatttttga  
3060  
ggcagataat gatctagttt gactttctag ttagtgggtgt tttgaagagg gtattttatt  
3120  
gttttttaaa aaaaggttct taaacattat ttgaaatagt taatataaat acataattgc  
3180  
atttgctctg tttattgtaa tgtattctaa attaatgcag aacctatagg aaaatttcat  
3240  
taaaatctat ccccaaatgt gctttctgta tccctccttc tacctattat tctgattttt  
3300  
aaaaatgcag ttaatgtacc atttatttgc ttgatgaagg gagctctatt ttctttacca  
3360  
gaaatgttgc taagtaattc ccaatagaaa gctgcttatt ttcattaatg aaaaataacc  
3420  
atggtttga tactagaagt cttcttcaga aactgggtgag cctttctggt caattgcatt  
3480  
tgtaataaaa cttgctgatg catttaacga gtgggtcgtc tttttcttag gtgtatgtgt  
3540  
ctgacctcag gccttttagc catatttcag tatgtggcct tttttgatgt tatgttttat  
3600  
ccagtactt tactaaggta taattgatgt aataaactgc atatatttaa agtgtatact  
3660  
ttgacaaatt ttgacatggt gtataccttc gaaactatgc cacagtctgg atgtgtttac  
3720  
tgaaacattt taataaggaa gtttattttt gataaagtta tgtttttgga tacaatatat  
3780  
ttgtatggtg agagtgatga attgttggat catttgaata aaatctttta ctaaccccat  
3840  
gataaaagga gaagacaaca gtgagcttag aatatctata aagcaaaaaa tgtagtctct  
3900

tgtttaaaaa atctggagcg ggaatgcaag gatacaaaac tttagcatgc tttgagcaaa  
 3960  
 aattttaaact tactggaatc ttttataata atgtaagtgg aatggaggat tctaggaact  
 4020  
 gagaactgta ttggaatagg ttcaaaatat gtaagaaatg ctaatgtggg agataaaaaat  
 4080  
 tttatttagt acttattctg attattatta aagtaataat gtgttccttg aggataactt  
 4140  
 gtcaaatgcc ccaaagcata aagaatataa ttctgaatcc caaattccaa agacaagaac  
 4200  
 tctgtgttg aattcattct gcatataatt atttataagt atagattgtg aatttttcca  
 4260  
 tgttcttaaa attattttta tcttttttca tggttgcata gtgctccatt gtttggcctt  
 4320  
 ggtaatatatt agttgataat tccattactg tgtatttttc acttgtttct aagatcaaac  
 4380  
 attttaatat gtgcatgtta tatataaata tgtaaatctt gtgatactct atgatcatct  
 4440  
 ctttctttat attattttca tagacatgaa atagttgctc agagattatg cattttaaga  
 4500  
 cactcatagt atatattgcc aaagtgggtt ccagaaaggc actgctggct tcgactccta  
 4560  
 taagcagcac gtgggcttgt tcatctcact gcatgtttat gaagatacag ttcttttgcc  
 4620  
 ttgttctctg cctgatgtgt atgcagaggc agccctcaat atgcagtggg tgaataaatg  
 4680  
 aatgaagaaa ccactatcaa aaaaaaaaaa aaaaaa  
 4716

<210> 730

<211> 797

<212> PRT

<213> Homo sapiens

<400> 730

Met	Glu	Ser	Thr	Arg	Val	Ser	Ala	Ser	Leu	Pro	Arg	Ser	Tyr	Arg	Lys
1					5				10					15	
Thr	Asp	Thr	Val	Arg	Leu	Thr	Ser	Val	Val	Thr	Pro	Arg	Pro	Phe	Gly
			20					25					30		
Ser	Gln	Thr	Arg	Gly	Ile	Ser	Ser	Leu	Pro	Arg	Ser	Tyr	Thr	Met	Asp
		35					40					45			
Asp	Ala	Trp	Lys	Tyr	Asn	Gly	Asp	Val	Glu	Asp	Ile	Lys	Arg	Thr	Pro
	50					55				60					
Asn	Asn	Val	Val	Ser	Thr	Pro	Ala	Pro	Ser	Pro	Asp	Ala	Ser	Gln	Leu
65					70				75					80	
Ala	Ser	Ser	Leu	Ser	Ser	Gln	Lys	Glu	Val	Ala	Ala	Thr	Glu	Glu	Asp
			85					90					95		
Val	Thr	Arg	Leu	Pro	Ser	Pro	Thr	Ser	Pro	Phe	Ser	Ser	Leu	Ser	Gln
			100				105						110		
Asp	Gln	Ala	Ala	Thr	Ser	Lys	Ala	Thr	Leu	Ser	Ser	Thr	Ser	Gly	Leu
		115				120						125			
Asp	Leu	Met	Ser	Glu	Ser	Gly	Glu	Gly	Glu	Ile	Ser	Pro	Gln	Arg	Glu
	130					135						140			
Val	Ser	Arg	Ser	Gln	Asp	Gln	Phe	Ser	Asp	Met	Arg	Ile	Ser	Ile	Asn



815

	580		585		590										
Pro	Leu	His	Asn	Asp	Asn	Ser	Trp	Ile	Arg	Gln	Arg	Ser	Ala	Ser	Val
	595						600					605			
Asn	Lys	Glu	Pro	Val	Ser	Leu	Pro	Gly	Ile	Met	Arg	Arg	Gly	Glu	Ser
	610						615					620			
Leu	Asp	Asn	Leu	Asp	Ser	Pro	Arg	Ser	Asn	Ser	Trp	Arg	Gln	Pro	Pro
	625						630				635				640
Trp	Leu	Asn	Gln	Pro	Thr	Gly	Phe	Tyr	Ala	Ser	Ser	Ser	Val	Gln	Asp
			645						650					655	
Phe	Ser	Arg	Pro	Pro	Gln	Leu	Val	Ser	Thr	Ser	Asn	Arg	Ala	Tyr	
			660					665					670		
Met	Arg	Asn	Pro	Ser	Ser	Ser	Val	Pro	Pro	Ser	Ala	Gly	Ser	Val	
		675					680					685			
Lys	Thr	Ser	Thr	Thr	Gly	Val	Ala	Thr	Thr	Gln	Ser	Pro	Thr	Pro	Arg
	690					695						700			
Ser	His	Ser	Pro	Ser	Ala	Ser	Gln	Ser	Gly	Ser	Gln	Leu	Arg	Asn	Arg
	705				710					715					720
Ser	Val	Ser	Gly	Lys	Arg	Ile	Cys	Ser	Tyr	Cys	Asn	Asn	Ile	Leu	Gly
				725					730						735
Lys	Gly	Ala	Ala	Met	Ile	Ile	Glu	Ser	Leu	Gly	Leu	Cys	Tyr	His	Leu
			740					745					750		
His	Cys	Phe	Lys	Cys	Val	Ala	Cys	Glu	Cys	Asp	Leu	Gly	Gly	Ser	Ser
		755					760					765			
Ser	Gly	Ala	Glu	Val	Arg	Ile	Arg	Asn	His	Gln	Leu	Tyr	Cys	Asn	Asp
	770					775					780				
Cys	Tyr	Leu	Arg	Phe	Lys	Ser	Gly	Arg	Pro	Thr	Ala	Met			
	785				790					795					

&lt;210&gt; 731

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 731

tcgcgagcac actccagcct ctgcttttct cagtggcttg gccagaacag aattgttct  
60  
actcgaatga cccagattc cctccaagaa ctccctcct ctcattcagc ttctctggat  
120  
tcttcaaatg actgactggg gaaacagatt gttggaaaaa cactttcggg ttgcctcgat  
180  
ggggtcaata ccttatcagg ccacaggaaa gacaaaggaa aatgcttct gctggagcat  
240  
gtgcacatat gttgttcctt taactccaaa tacgtatgca ggggtggtgg taggatcaga  
300  
aaatgtgtga tcagaaagt accagttccc caccattttg tgtgggtttt atttctttc  
360  
tgctccgtgt tgactctttt cccacaaca cggaagctgc ttaatccaaa gacttgacc  
420  
atttcattct gtttcagatc cattccaaca aaatgatcag ttggtggctt atgtaaaaag  
480  
cagctccatg actacattta aatattgact agt  
513

&lt;210&gt; 732

<211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 732

```

Met Asp Leu Lys Gln Asn Glu Met Val Gln Val Phe Gly Leu Ser Ser
 1           5           10           15
Phe Arg Val Val Gly Lys Arg Val Asn Thr Glu Gln Lys Glu Asn Lys
 20           25           30
Thr His Thr Lys Trp Trp Gly Thr Gly His Phe Leu Ile Thr His Phe
 35           40           45
Leu Ile Leu Pro Pro Pro Leu His Thr Tyr Leu Glu Leu Lys Glu Gln
 50           55           60
His Met Cys Thr Cys Ser Ser Arg Lys His Phe Pro Leu Ser Phe Leu
 65           70           75           80
Trp Pro Asp Lys Val Leu Thr Pro Ser Arg Gln Pro Glu Ser Val Phe
 85           90           95
Pro Thr Ile Cys Phe Pro Ser Gln Ser Phe Glu Glu Ser Arg Glu Ala
 100          105          110
Glu
  
```

<210> 733  
 <211> 4366  
 <212> DNA  
 <213> Homo sapiens

<400> 733

```

nttttaacaa aaaaaatata ttaataaaaa agttcaaaaa aggggggggga ttgtcatctc
 60
ctttgggggtg cgatggcttc aaatccaaac tgaggctctc cgggtggtta ggatgtgcga
 120
ggaggcctct tgaagaactc caggcctatc atgctgtctc tccgctaaag cctgaggccc
 180
gaggtcagag gattcaggaa ggctctgcag tcggcccagg agggcggggt cccgtgggtg
 240
aggcggggag agggaaggac cgcacggagc accaaccctc gtcggtcccc gtaccaggaa
 300
gcgctggggg gcagaggagc ggagttgagg cagaagccag gtgaggctgg agtcctgggg
 360
taggcaggct gtcgtgccg ccgccgtgc ctgagatgga aatcggggga ggaagctcgc
 420
ggaagaaaca gcggagggtt cgtggaaaaa aaagcaatgg ctgagctaag ggatggggta
 480
ccagggttagg gggaggaaac ggtagagaga aatagggtgg gctcccgcgc atgctcaata
 540
gggaaggggc gcccggtggg tgcggacgca tgcgtagtgg gcttctcggg cgggtggggg
 600
ggcgcggaat ttggagaccc acttcgggaa aggtaaaatg cgggcgcaat tttagggtac
 660
ctgtggggacc cgggctctta gggctctgac acaggacggg cctggggcca aagcccaggc
 720
acgcccgacc agagagtgtt tctccactcc cggactctgc cagtcaggat ggtggtgcct
 780
  
```

tcgctgaagc ttcaggacct catcgaagag attcgcgggg ccaagactca ggcccaggag  
840  
cgggagggtga tccaaaagga gtgtgcccac atccgggcct ccttccgga cggggagcca  
900  
gtgcacaggc accggcagct ggccaaactg ctctacgtcc acatgttggg ctaccccgcc  
960  
cactttggac agatggagtg cctgaaactg atcgctcct ccagattcac agacaagagg  
1020  
gtgggctacc tgggggcat gcttctattg gatgagaggc acgatgcca cctgtcatt  
1080  
accaacagca tcaagaatga cctgagccag gggattcagc cagtacaagg cctggccttg  
1140  
tgcactttga gcaccatggg ctctgtgag atgtgccgag acctggcccc agagggtggag  
1200  
aaactgctcc tgcagcccag tccctacgtg cgcaagaagg ctattctgac tgcagtgcac  
1260  
atgatccgga aggtccctga actctccagt gtcttcctcc caccctgtgc ccaactgctt  
1320  
catgagcgtc accatggcat cctgtgggc accatcacgc tgatcacgga gctctgcgaa  
1380  
cgaagccctg cagccctcag gcacttccga aaggtggtac ccagctggt acacatcctc  
1440  
cggactctgg tgacaatggg atactccaca gaacacagca tatctggagt cagcgacccc  
1500  
ttcctgcagg tccagatact tcgtctgctt cggatcctgg gccggaacca cgaggagagc  
1560  
agtgagacca tgaatgactt gctggcccag gtggccacta acacggacac cagccgaaat  
1620  
gccggaaatg cggctcctgtt tgagacagta ctcaccatca tggatatccg ctctgcagct  
1680  
ggcctacggg ttctagctgt caacattctt ggtcgtctcc tactcaacag tgacaggaac  
1740  
attaggtatg tagccctgac atcactgctt cgactggtgc agtctgatca cagtgtgtg  
1800  
cagcggcatc ggcccactgt ggtggaatgt ctacgggaaa ctgatgcctc cctcagccg  
1860  
tgagccctgg aactaagcct ggctctggtg aatagctcca atgtgcgagc catgatgcaa  
1920  
gagctgcagg cctttctgga gtctgcctt cctgacctac gggetgactg tgcctcaggc  
1980  
atcctgctgg ctgcagagag gtttgtcca accaaacgct ggcatataga caccatcctg  
2040  
catgtgtga caacggcggg caccatgtg cgggatgatg cagtggccaa cctgaccag  
2100  
ctgattggg gggcccagga gctacatgcc tactctgtgc gccgcctcta caatgcctg  
2160  
gcagaagaca tttcccagca accactggtg caggtggcag cctggtgcat tggggagtat  
2220  
ggggacctcc tgctggcagg gaactgcgag gagattgagc cccttcaggt ggacgaagag  
2280  
gaagtgtgg cattgtgga aaaggtgtg cagtcccaca tgccctgcc agccactcga  
2340  
ggatatgcc tcacagccct catgaagctc agcactcgcc tctgtgggga caacaaccgc  
2400

atccgccagg tgggtgtccat ctacgggagc tgcttggacg tggagctgca gcagcgggct  
2460  
gtggagtatg acacactctt ccggaatac gaccacatga gggctgccat cctggaaaaa  
2520  
atgcctcttg tggagcgaga tggccctcag gctgatgagg aagcaaagga aagcaaagaa  
2580  
gcagcccagc ttccagaagc agccccagtg cccacagagc cccaggcctc acagctcctg  
2640  
gatctgctag atctcctgga tggggcttct ggggatgtcc agcatcctcc ccactctggac  
2700  
ccctccccag gaggtgccct ggtacacctg cttgaccttc cctgtgtacc tccaccccc  
2760  
gctcccatcc cagatctcaa agtgtttgag cgtgaggag tacagctgaa tctgtctttc  
2820  
attcgacccc ctgaaaaccc tgctttgctg ttaatcacca tcaactgccac caactttctc  
2880  
gaggggtgatg tcacccattt catctgccag gctgctgtgc ccaagagtct ccagctgcag  
2940  
ctgcaggccc ccagtgggaa cacagttcca gctcggggtg gccttcctat caccagctc  
3000  
ttcagaatcc tcaatcctaa caaggccccc ctgcggctaa agctgcgcct cacctacgac  
3060  
cactttcacc agtcggtgca ggagatcttt gaggtgaaca acttgccctgt ggaatcgtgg  
3120  
cagtaactgt ctccactcac agcctgaaat tctcctgtgt cccaaacccc agggggcccc  
3180  
agcagcttcg aacctacacc tgagggttac cagcagggtg cgctctggct ttgcactgca  
3240  
aaaactgggg accagccccc ttctcccaca aataaagccc aataaagcct gagaagttag  
3300  
gaaagccata ttgggtata ttgaagtgg aaagtgtgta tgaataacag caagggaaga  
3360  
gcattcttac ataggaggta tgcattctcc cctgagcctt gagaacctgt ctcaacacgg  
3420  
gggcggggag ggggcagctg ttggttcttt ctaaccctct ccaggtcagg gaacaaattt  
3480  
gcccttaaac ttccacagga ggcactctac cctctgggcc agagctgggc acagtggcaa  
3540  
agtcagatta gaatttctag agttctaaca gcgattccca accatttctt caacttttct  
3600  
tctgtttccc acatcccaag gcagggaat cctgctgcc tctctctcctc ttctaactca  
3660  
gctgtaaggc ggtttaggag ccgctggcag aatcaatggc atcgaccaag ggaggggggg  
3720  
tggcaaggga ttttctgtg cttaactact gatcacggct aagtggaaat cctataaaca  
3780  
cgagcggaat tcaatggagg ctgcttagcg gccaggggag aggggcggcc cacagattgc  
3840  
atctgacgga tgagcgagag gaagcagcca gggagggctc aaggaagagt agcttagagg  
3900  
agggggaaga aacaggcagc gctggagaga gaggagtcac tgtcagaagg gacactgagg  
3960  
ggagaggcac agtgggcccc ggagtggact ccgtagacc cagagttccc tccccctct  
4020

aggaagtgc acccctagcc caggcagtgg tcaggatctt cagtctctctg tggcctctct  
 4080  
 ctggagctgt tcacttctag caggcgctga tagtcttgag gccggaacg ctgtagatac  
 4140  
 acaatcagct tggctggtgc tgtctcctgt gcaggcacac ctcaaagccc gagagtctcc  
 4200  
 tcgcgggacc cacagagggg gaaggagacc cagccatac actcgcgagg aatgccggga  
 4260  
 gcagttccgg atcccgacc tcggcccagc cctccgcgcg cccggcaggt cccggcacca  
 4320  
 gggccatat tacgccgtt gtggcggtgc cgagagcagg ccaggc  
 4366

<210> 734

<211> 364

<212> PRT

<213> Homo sapiens

<400> 734

Met	Val	Val	Pro	Ser	Leu	Lys	Leu	Gln	Asp	Leu	Ile	Glu	Glu	Ile	Arg
1				5					10					15	
Gly	Ala	Lys	Thr	Gln	Ala	Gln	Glu	Arg	Glu	Val	Ile	Gln	Lys	Glu	Cys
			20					25					30		
Ala	His	Ile	Arg	Ala	Ser	Phe	Arg	Asp	Gly	Asp	Pro	Val	His	Arg	His
		35					40					45			
Arg	Gln	Leu	Ala	Lys	Leu	Leu	Tyr	Val	His	Met	Leu	Gly	Tyr	Pro	Ala
		50					55				60				
His	Phe	Gly	Gln	Met	Glu	Cys	Leu	Lys	Leu	Ile	Ala	Ser	Ser	Arg	Phe
65					70					75					80
Thr	Asp	Lys	Arg	Val	Gly	Tyr	Leu	Gly	Ala	Met	Leu	Leu	Leu	Asp	Glu
			85						90					95	
Arg	His	Asp	Ala	His	Leu	Leu	Ile	Thr	Asn	Ser	Ile	Lys	Asn	Asp	Leu
			100					105					110		
Ser	Gln	Gly	Ile	Gln	Pro	Val	Gln	Gly	Leu	Ala	Leu	Cys	Thr	Leu	Ser
		115					120					125			
Thr	Met	Gly	Ser	Ala	Glu	Met	Cys	Arg	Asp	Leu	Ala	Pro	Glu	Val	Glu
		130					135					140			
Lys	Leu	Leu	Leu	Gln	Pro	Ser	Pro	Tyr	Val	Arg	Lys	Lys	Ala	Ile	Leu
145					150					155				160	
Thr	Ala	Val	His	Met	Ile	Arg	Lys	Val	Pro	Glu	Leu	Ser	Ser	Val	Phe
				165					170					175	
Leu	Pro	Pro	Cys	Ala	Gln	Leu	Leu	His	Glu	Arg	His	His	Gly	Ile	Leu
			180					185					190		
Leu	Gly	Thr	Ile	Thr	Leu	Ile	Thr	Glu	Leu	Cys	Glu	Arg	Ser	Pro	Ala
		195					200					205			
Ala	Leu	Arg	His	Phe	Arg	Lys	Val	Val	Pro	Gln	Leu	Val	His	Ile	Leu
		210				215					220				
Arg	Thr	Leu	Val	Thr	Met	Gly	Tyr	Ser	Thr	Glu	His	Ser	Ile	Ser	Gly
225					230					235				240	
Val	Ser	Asp	Pro	Phe	Leu	Gln	Val	Gln	Ile	Leu	Arg	Leu	Leu	Arg	Ile
				245					250					255	
Leu	Gly	Arg	Asn	His	Glu	Glu	Ser	Ser	Glu	Thr	Met	Asn	Asp	Leu	Leu
			260					265					270		
Ala	Gln	Val	Ala	Thr	Asn	Thr	Asp	Thr	Ser	Arg	Asn	Ala	Gly	Asn	Ala

275                      280                      285  
 Val Leu Phe Glu Thr Val Leu Thr Ile Met Asp Ile Arg Ser Ala Ala  
 290                      295                      300  
 Gly Leu Arg Val Leu Ala Val Asn Ile Leu Gly Arg Phe Leu Leu Asn  
 305                      310                      315                      320  
 Ser Asp Arg Asn Ile Arg Tyr Val Ala Leu Thr Ser Leu Leu Arg Leu  
 325                      330                      335  
 Val Gln Ser Asp His Ser Ala Val Gln Arg His Arg Pro Thr Val Val  
 340                      345                      350  
 Glu Cys Leu Arg Glu Thr Asp Ala Ser Leu Ser Arg  
 355                      360

<210> 735  
 <211> 597  
 <212> DNA  
 <213> Homo sapiens

<400> 735  
 gtcgactagc caaacgcgcc gggaaagtct tgtaccaccg atcctgggtt atgcggatct  
 60  
 catcgccacc atggactcgc gcaatctgga aaccgccaac cttattccag aaaaaataat  
 120  
 tgcttggtgt cctcgatccc gctctgaccg cccactggac cgctcaaccc aggacatcct  
 180  
 cagtgccatc caccgctgg ctgcaccgct ggcactaccc atcttcgtgg tgggtgccac  
 240  
 agcgcgcgac attctgctga cacacgtgtt cggatcagag accggacgtg ccacgctcga  
 300  
 cgtggatttc gccgttgccg tagaacattg gccgcagttc gaaaacatca agcagcacct  
 360  
 gctagccaac gaccatttcg actctgccgc cagcatcacc catcgactgc tctatcgcac  
 420  
 gagcgacaac acgatcgccc ggccaatcga tctcatccca ttcggcggca tcgaacagcc  
 480  
 gccagccacc atcaaattggc cgcccgacat ggctgtcatg atgaatgttg ctggctacgc  
 540  
 agatgcctgg cgggccgcag tcgaagtaga gtttggtccc gggcgcagca tacgcgt  
 597

<210> 736  
 <211> 175  
 <212> PRT  
 <213> Homo sapiens

<400> 736  
 Met Asp Ser Arg Asn Leu Glu Thr Ala Asn Leu Ile Pro Glu Lys Ile  
 1                      5                      10                      15  
 Ile Ala Trp Cys Pro Arg Ser Arg Ser Asp Arg Pro Leu Asp Arg Ser  
 20                      25                      30  
 Thr Gln Asp Ile Leu Ser Ala Ile His Asp Val Ala Ala Pro Leu Ala  
 35                      40                      45  
 Leu Pro Ile Phe Val Val Gly Ala Thr Ala Arg Asp Ile Leu Leu Thr  
 50                      55                      60  
 His Val Phe Gly Ile Glu Thr Gly Arg Ala Thr Leu Asp Val Asp Phe

```

65              70              75              80
Ala Val Ala Val Glu His Trp Pro Gln Phe Glu Asn Ile Lys Gln His
              85              90              95
Leu Leu Ala Asn Asp His Phe Asp Ser Ala Ala Ser Ile Thr His Arg
              100              105              110
Leu Leu Tyr Arg Thr Ser Asp Asn Thr Ile Ala Arg Pro Ile Asp Leu
              115              120              125
Ile Pro Phe Gly Gly Ile Glu Gln Pro Pro Ala Thr Ile Lys Trp Pro
              130              135              140
Pro Asp Met Ala Val Met Met Asn Val Ala Gly Tyr Ala Asp Ala Trp
145              150              155              160
Arg Ala Ala Val Glu Val Glu Phe Val Pro Gly Arg Ser Ile Arg
              165              170              175

```

&lt;210&gt; 737

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 737

```

ntgcgcctgg ccaattccgg cgccatcctc gggcacgacg tggggaaaac ctccatggtg
60
cgcgccggca tcgttgggta cggatacgat cccaaccctc acgccgaccg tgccgaccta
120
caccctgccc tgctctggat cagccacgtc accttcgtta aaactgtcag tgtgggggat
180
accatcggct acggcagaac atggacagcc agcgaaacga caaaaatcgc caccgtccca
240
gtcggttacg cgcacggact gtcccagga ctgtcaaata aaggacacgt tctcattaga
300
gggtccgttc atcccacgt cggtcggacg tgcattggac aattcatggt cgatcttggc
360
cccgattcga acgtcacggt gggagatgag gtggtgctca ttggaacca ggaggacgaa
420
actctgaccg ctgatgacat ggccgaactc ctcggaacca ttagctacga gatcacttgc
480
gccatttcca aacgcgt
497

```

&lt;210&gt; 738

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 738

```

Xaa Arg Leu Ala Asn Ser Gly Ala Ile Leu Gly His Asp Leu Gly Lys
1              5              10              15
Thr Ser Met Val Arg Ala Gly Ile Val Gly Tyr Gly Tyr Asp Pro Asn
              20              25              30
Pro His Ala Asp Arg Ala Asp Leu His Pro Ala Leu Ser Trp Ile Ser
              35              40              45
His Val Thr Phe Val Lys Thr Val Ser Val Gly Asp Thr Ile Gly Tyr
              50              55              60
Gly Arg Thr Trp Thr Ala Ser Glu Thr Thr Lys Ile Ala Thr Val Pro

```



```

65          70          75          80
Val Gly Tyr Ala Asp Gly Leu Ser Arg Gly Leu Ser Asn Lys Gly His
          85          90          95
Val Leu Ile Arg Gly Ser Val His Pro Ile Val Gly Arg Ile Cys Met
          100          105          110
Asp Gln Phe Met Val Asp Leu Gly Pro Asp Ser Asn Val Thr Val Gly
          115          120          125
Asp Glu Val Val Leu Ile Gly Thr Gln Glu Asp Glu Thr Leu Thr Ala
          130          135          140
Asp Asp Met Ala Glu Leu Leu Gly Thr Ile Ser Tyr Glu Ile Thr Cys
145          150          155          160
Ala Ile Ser Lys Arg
          165

```

<210> 739  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

```

<400> 739
cggctgcggg aagagcgggc gcacgcgctc aagaccaagg aaaagctggc acagaccgcc
60
acggcctcat cagcagctgt gggctcaggc cccctcccg aggcggagca ggcgtggccg
120
cagagcagcg gggaggagga gctgcagctc cagctggccc tggccatgag caaggaggag
180
gccgaccagc ccccgctctg cggccccgag gacgacgccc agctccagct ggcccttagt
240
ttgagccgag aagagcatga taaggaggag cggatccgct gcggggatga cctgcggctg
300
cagatggcaa tcgaggagag caagagggag actgggggca aggaggagtc gtcctcatg
360
gaccttgctg acgtcttcac gccccagct cctgccccga ccacagaccc ctggggggggc
420
ccagcaccca tggctgct
438

```

<210> 740  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

```

<400> 740
Arg Leu Arg Glu Glu Arg Ala His Ala Leu Lys Thr Lys Glu Lys Leu
1          5          10          15
Ala Gln Thr Ala Thr Ala Ser Ser Ala Ala Val Gly Ser Gly Pro Pro
          20          25          30
Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu Glu Leu
          35          40          45
Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp Gln Pro
          50          55          60
Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln Leu Gln Leu Ala Leu Ser
65          70          75          80
Leu Ser Arg Glu Glu His Asp Lys Glu Glu Arg Ile Arg Arg Gly Asp

```

	85		90		95										
Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr	Gly
	100		105		110										
Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr	Pro
	115		120		125										
Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro	Met
	130		135		140										
Ala	Ala														
145															

&lt;210&gt; 741

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 741

```

gcctctctcc gaccgcgttg ttgtaaggat gtcgcgacgg tgcgcaaaaa tgaatatgtg
60
aatttgccgg tcatctgcct cgtcggggccc actgctagcg gaaaatcagg gctagcgggtg
120
cgagtgtgcc gccgcttgta tgctgatgag caccgcccg aaattattaa tactgactcg
180
atgggtggtgt atcgcgggat ggacattggc actgccaccc ctacactgcg cgagcagcgc
240
acggtagtgc atcacctggt gtcgattctt gatgtgactg tgccctcttc gctagtactg
300
atgcagacgc tggcccgtag tgccgtcgag gattgtctgt cgctggtgt catccctgtc
360
ttggtgggag ggtctgcgct gtacaccaag gccatcattg acgaaatgac catcccgcca
420
actgatccgg aagtgagggc tcggtggcag gagaagctag atgccgaggg gccgcgagtt
480
ctgcatgacg agcttgcccg tcgcatccc aaggcggctg agtcaatctt gcccggaac
540
ggcaggcgaa tcgtttcgtg cctcgaagt ttattgaccc tgacagggtc ctttactgcc
600
accgatcccc gacgggaccc tccactggcc aagacgggtg aaatgggctt agaactgtcg
660
cgcaaagaca tagaccagcg tattgccgat cgggttgacc agatgtgggc atacggttcc
720
gtcgac
726

```

&lt;210&gt; 742

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 742

Ala	Ser	Leu	Arg	Pro	Arg	Cys	Cys	Lys	Asp	Val	Ala	Thr	Val	Arg	Lys
1			5					10						15	
Asn	Glu	Tyr	Val	Asn	Leu	Pro	Val	Ile	Cys	Leu	Val	Gly	Pro	Thr	Ala
			20					25						30	
Ser	Gly	Lys	Ser	Gly	Leu	Ala	Val	Arg	Val	Cys	Arg	Arg	Leu	Tyr	Val

```

      35              40              45
Asp Glu His Pro Ala Glu Ile Ile Asn Thr Asp Ser Met Val Val Tyr
 50              55              60
Arg Gly Met Asp Ile Gly Thr Ala Thr Pro Thr Leu Arg Glu Gln Arg
 65              70              75              80
Thr Val Val His His Leu Val Ser Ile Leu Asp Val Thr Val Pro Ser
      85              90              95
Ser Leu Val Leu Met Gln Thr Leu Ala Arg Asp Ala Val Glu Asp Cys
      100              105              110
Leu Ser Arg Gly Val Ile Pro Val Leu Val Gly Gly Ser Ala Leu Tyr
      115              120              125
Thr Lys Ala Ile Ile Asp Glu Met Ser Ile Pro Pro Thr Asp Pro Glu
      130              135              140
Val Arg Ala Arg Trp Gln Glu Lys Leu Asp Ala Glu Gly Pro Arg Val
 145              150              155              160
Leu His Asp Glu Leu Ala Arg Arg Asp Pro Lys Ala Ala Glu Ser Ile
      165              170              175
Leu Pro Gly Asn Gly Arg Arg Ile Val Ser Cys Pro Arg Ser Leu Leu
      180              185              190
Thr Leu Thr Gly Ser Phe Thr Ala Thr Asp Pro Arg Arg Asp Pro Pro
      195              200              205
Leu Ala Lys Thr Val Gln Met Gly Leu Glu Leu Ser Arg Lys Asp Ile
      210              215              220
Asp Gln Arg Ile Ala Asp Arg Val Asp Gln Met Trp Ala Tyr Gly Phe
 225              230              235              240
Val Asp

```

&lt;210&gt; 743

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 743

```

naaaaaagtg atggtttcgg atctgtggcc agtcgtcttg caagaaatca ttatgacgtg
 60
gatgagggca acagcancat tcatgttaat caagacattg cgcgcagaac agggacggga
 120
aagctattgg tacgagtgtg cccggcgcac gtgtactcag aggagcccga tggcactatt
 180
tccgtggagt acgcagcgtg tctggagtgt ggcacttgtc tggcggttgc tgcgccaggg
 240
tcgcttgaat ggcactatcc cgcaggtgca atgggtatctt cgttcagaga aggatgaagt
 300
ccttggtggc gactgtaaag cgacatggcc gtcgctcggg aggaggaatt gtggtgtccg
 360
caccaaatag tgctcaggat gaagttcgtc atggaaatcc ggctccaacc gtttcgggag
 420
ctggtcgcga
 430

```

&lt;210&gt; 744

&lt;211&gt; 98

&lt;212&gt; PRT

<213> Homo sapiens

<400> 744

```

Xaa Lys Ser Asp Gly Phe Gly Ser Val Ala Ser Arg Leu Ala Arg Asn
 1           5           10           15
His Tyr Asp Val Asp Glu Gly Asn Ser Xaa Ile His Val Asn Gln Asp
      20           25           30
Ile Ala Arg Arg Thr Gly Thr Gly Lys Leu Leu Val Arg Val Cys Pro
      35           40           45
Ala His Val Tyr Ser Glu Glu Pro Asp Gly Thr Ile Ser Val Glu Tyr
      50           55           60
Ala Ala Cys Leu Glu Cys Gly Thr Cys Leu Ala Val Ala Ala Pro Gly
      65           70           75           80
Ser Leu Glu Trp His Tyr Pro Ala Gly Ala Met Gly Ile Ser Phe Arg
      85           90           95
Glu Gly

```

<210> 745

<211> 362

<212> DNA

<213> Homo sapiens

<400> 745

```

cggccgattg aagcgctcgt gcggtttgag tcggtgatgg atgcgggtgga cggtgcttcg
60
gcgtcgtggg ggcgcatggc gcggtatttc atcgccgagc ttgaacgcag cagcgagttg
120
tatgagcagg cggcggtttac ccgcatctcg gaaagctcgc tgatcaaggg cctgatcctc
180
gcccagccga acaactactc cgaagaactg cgcgacgtac tcggcggtgaa gctgccgcac
240
tacttgattc gcgcgaggca gtacatccac gacaacgccc gcgaagccgt gcacctggaa
300
gacctggaaa ccgctgccgg ggtatcgagg ttcaagttgt tcgatgcggt tcgcaaatac
360
tt
362

```

<210> 746

<211> 108

<212> PRT

<213> Homo sapiens

<400> 746

```

Met Asp Ala Val Asp Gly Ala Ser Ala Ser Trp Trp Arg Met Ala Arg
 1           5           10           15
Tyr Phe Ile Ala Glu Leu Glu Arg Ser Ser Glu Leu Tyr Glu Gln Ala
      20           25           30
Ala Phe Thr Arg Asp Leu Glu Ser Ser Leu Ile Lys Gly Leu Ile Leu
      35           40           45
Ala Gln Pro Asn Asn Tyr Ser Glu Glu Leu Arg Asp Val Leu Gly Val
      50           55           60
Lys Leu Pro His Tyr Leu Ile Arg Ala Arg Gln Tyr Ile His Asp Asn

```

65                      70                      75                      80  
Ala Arg Glu Ala Val His Leu Glu Asp Leu Glu Thr Ala Ala Gly Val  
                      85                      90                      95  
Ser Arg Phe Lys Leu Phe Asp Ala Phe Arg Lys Tyr  
                100                      105

```
<210> 747
<211> 416
<212> DNA
<213> Homo sapiens
```

```
<400> 747
nagcgcgttga tcgcccgccga ccgtttcatc ccgcaatcac ccgacatggc ggccatatttt
60
ctgaatgccg atggcacgcc taaagccacc ggcacgctgc tcaagaaccc agcgctggcc
120
gccgtgttca aacgtatcgc caaggaagga ccggacgcgc tgtaccacgg gccgattgcc
180
gacgagatcg cgcgcaaggt tcagggcaac cgcaatgcgg gcagcctgtc gcaagcggac
240
ctcaaggctt acaccgccaa ggaacgcacg ccgctgtgca ccgactacaa gcaatatcag
300
gtgtgcggca tgccaccgcc gtcgtcaggc gggattgcgg tggcgcagat cctcggcacg
360
ctgcaggccg tggaagcccg cgacccacgc ctggccatcg ccccatgaa accggt
416
```

```
<210> 748
<211> 138
<212> PRT
<213> Homo sapiens
```

```

<400> 748
Xaa Ala Leu Ile Ala Ala Asp Arg Phe Ile Pro Gln Ser Pro Asp Met
 1             5             10             15
Ala Ala Tyr Phe Leu Asn Ala Asp Gly Thr Pro Lys Ala Thr Gly Thr
      20             25             30
Leu Leu Lys Asn Pro Ala Leu Ala Ala Val Phe Lys Arg Ile Ala Lys
      35             40             45
Glu Gly Pro Asp Ala Leu Tyr His Gly Pro Ile Ala Asp Glu Ile Ala
      50             55             60
Arg Lys Val Gln Gly Asn Arg Asn Ala Gly Ser Leu Ser Gln Ala Asp
65             70             75             80
Leu Lys Ala Tyr Thr Ala Lys Glu Arg Thr Pro Leu Cys Thr Asp Tyr
      85             90             95
Lys Gln Tyr Gln Val Cys Gly Met Pro Pro Pro Ser Ser Gly Gly Ile
      100            105            110
Ala Val Ala Gln Ile Leu Gly Thr Leu Gln Ala Val Glu Ala Arg Asp
      115            120            125
Pro Arg Leu Ala Ile Ala Pro Met Lys Pro
      130            135

```

<210> 749  
<211> 1211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 749

nagtcctaga cgccagaccc gctcagaccc tcttgccagg tgacagccgc caagatgggg  
60  
tcttgggccc tgctgtggcc tcccctgctg ttcaccgggc tgctcgccg acccccggg  
120  
accatggccc aggcccagta ctgctctgtg aacaaggaca tctttgaagt agaggagaac  
180  
acaaatgtca ccgagccgct ggtggacatc cacgtcccgg agggccagga ggtgaccctc  
240  
ggagccttgt ccacccctt tgcatttcgg atccaggga accagctgtt tctcaacgtg  
300  
actcctgatt acgaggagaa gtcactgctt gaggtcagc tgctgtgtca gagcggaggc  
360  
acattggtga ccagctaag ggtgttcgtg tcagtgtgtg acgtcaatga caatgcccc  
420  
gaattcccct ttaagaccaa ggagataagg gtggaggagg acacgaaagt gaactccacc  
480  
gtcatccccg agacgcaact gcaggctgag gaccgcgaca aggacgacat tctgttctac  
540  
accctccagg aaatgacagc aggtgccagt gactacttct ccctggtgag tgtaaaccgt  
600  
cccgccctga ggctggaccg gcccttgac ttctacgagc ggccgaacat gaccttctgg  
660  
ctgctggtgc gggacactcc gggggagaat gtggaacca gccacactgc caccgccaca  
720  
ctagtgtga acgtggtgcc cgccgacctg cggcccccgt ggttcctgcc ctgcacctc  
780  
tcagatggct acgtctgcat tcaagctcag taccacgggg ctgtccccac ggggcacata  
840  
ctgccatctc ccctcgtcct gcgtcccga cccatctacg ctgaggacgg agaccgaggc  
900  
atcaaccagc ccatcatcta cagcatcttt aggggaaacg tgaatggtac attcatcatc  
960  
caccagact cgggcaacct caccgtggcc aggagtgtcc ccagcccat gacctcctt  
1020  
ctgctggtga agggccaaca ggccgacctt gcccgctact cagtgacca ggtcacctg  
1080  
gagggctgtg gctgcggccg ggagcccgcc ccgcttcccc cagagcctgt atcgtggcac  
1140  
cgtggcgcgt ggcgctggag cgggcgttgt ggtcaaggat gcagctgcc cttttcagcc  
1200  
tctgaggatc c  
1211

&lt;210&gt; 750

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 750

Met Gly Ser Trp Ala Leu Leu Trp Pro Pro Leu Leu Phe Thr Gly Leu

1	5	10	15
Leu Val Arg	Pro Pro Gly Thr Met	Ala Gln Ala Gln Tyr	Cys Ser Val
20	25	30	
Asn Lys Asp	Ile Phe Glu Val Glu	Glu Asn Thr Asn Val	Thr Glu Pro
35	40	45	
Leu Val Asp	Ile His Val Pro	Glu Gly Gln Glu Val	Thr Leu Gly Ala
50	55	60	
Leu Ser Thr	Pro Phe Ala Phe Arg	Ile Gln Gly Asn Gln	Leu Phe Leu
65	70	75	80
Asn Val Thr	Pro Asp Tyr Glu Glu	Lys Ser Leu Leu Glu	Ala Gln Leu
85	90	95	
Leu Cys Gln	Ser Gly Gly Thr Leu	Val Thr Gln Leu Arg	Val Phe Val
100	105	110	
Ser Val Leu	Asp Val Asn Asp Asn	Ala Pro Glu Phe Pro	Phe Lys Thr
115	120	125	
Lys Glu Ile	Arg Val Glu Glu Asp	Thr Lys Val Asn Ser	Thr Val Ile
130	135	140	
Pro Glu Thr	Gln Leu Gln Ala Glu	Asp Arg Asp Lys Asp	Asp Ile Leu
145	150	155	160
Phe Tyr Thr	Leu Gln Glu Met Thr	Ala Gly Ala Ser Asp	Tyr Phe Ser
165	170	175	
Leu Val Ser	Val Asn Arg Pro Ala	Leu Arg Leu Asp Arg	Pro Leu Asp
180	185	190	
Phe Tyr Glu	Arg Pro Asn Met Thr	Phe Trp Leu Leu Val	Arg Asp Thr
195	200	205	
Pro Gly Glu	Asn Val Glu Pro Ser	His Thr Ala Thr Ala	Thr Leu Val
210	215	220	
Leu Asn Val	Val Pro Ala Asp Leu	Arg Pro Pro Trp Phe	Leu Pro Cys
225	230	235	240
Thr Phe Ser	Asp Gly Tyr Val Cys	Ile Gln Ala Gln Tyr	His Gly Ala
245	250	255	
Val Pro Thr	Gly His Ile Leu Pro	Ser Pro Leu Val Leu	Arg Pro Gly
260	265	270	
Pro Ile Tyr	Ala Glu Asp Gly Asp	Arg Gly Ile Asn Gln	Pro Ile Ile
275	280	285	
Tyr Ser Ile	Phe Arg Gly Asn Val	Asn Gly Thr Phe Ile	Ile His Pro
290	295	300	
Asp Ser Gly	Asn Leu Thr Val Ala	Arg Ser Val Pro Ser	Pro Met Thr
305	310	315	320
Phe Leu Leu	Leu Val Lys Gly Gln	Gln Ala Asp Leu Ala	Arg Tyr Ser
325	330	335	
Val Thr Gln	Val Thr Val Glu Gly	Cys Gly Cys Gly Arg	Glu Pro Ala
340	345	350	
Pro Leu Pro	Pro Glu Pro Val Ser	Trp His Arg Gly Ala	Trp Arg Trp
355	360	365	
Ser Gly Arg	Cys Gly Gln Gly Cys	Ser Cys Pro Phe Ser	Ala Ser Glu
370	375	380	

Asp  
385

&lt;210&gt; 751

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 751

cgcgctcgagg tcacgtgcaa cgacatgagc gaggtcaaca tcgacgcggc gctggtggcg  
60  
gcaggcggcg ggctgtcgcg caccgaggag aagctcgctg agatgtcgaa cggctgcatc  
120  
tgctgcacgc tgcgcgacga cctgatgcag gaagtggcga gactggcggg cgaaggccgc  
180  
ttcgatgcgc tggatcatga gagcaccggc gtgtccgagc cgatgccggt cgccgccacg  
240  
ttcgatttcc gtgaccagga cggcgtctcg ctccgccgacg tcgcgcgggt ggataccatg  
300  
gtcaccgtcg tcgacgcgcg gtccttctcg cgcgactacg gctcg  
345

&lt;210&gt; 752

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 752

Arg	Val	Ala	Val	Ile	Val	Asn	Asp	Met	Ser	Glu	Val	Asn	Ile	Asp	Ala
1				5					10					15	
Ala	Leu	Val	Ala	Ala	Gly	Gly	Gly	Leu	Ser	Arg	Thr	Glu	Glu	Lys	Leu
		20						25					30		
Val	Glu	Met	Ser	Asn	Gly	Cys	Ile	Cys	Cys	Thr	Leu	Arg	Asp	Asp	Leu
		35					40					45			
Met	Gln	Glu	Val	Ala	Arg	Leu	Ala	Gly	Glu	Gly	Arg	Phe	Asp	Ala	Leu
		50				55					60				
Val	Ile	Glu	Ser	Thr	Gly	Val	Ser	Glu	Pro	Met	Pro	Val	Ala	Ala	Thr
65					70					75				80	
Phe	Asp	Phe	Arg	Asp	Gln	Asp	Gly	Val	Ser	Leu	Ala	Asp	Val	Ala	Arg
			85						90				95		
Leu	Asp	Thr	Met	Val	Thr	Val	Val	Asp	Ala	Ala	Ser	Phe	Leu	Arg	Asp
			100					105					110		
Tyr	Gly	Ser													
		115													

&lt;210&gt; 753

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 753

gcgcgccagt acgccaagac cgctcgcaag gaccgcaagg gcgaacggcg gcgtcggggc  
60  
gcgtcggact agtccacgat gcatccgaac cgcgccttcc gctttgccga tgatgtctcg  
120  
atgtctgatt tcggggccaa gcgagccttt gcgcacatct tcgtgagcac gcccgagggg  
180  
cctatggtag cgcattgccc ggttacgcc ttccgacggag ccttccgctt ccatgtcgcg  
240  
cgcggaatc ggatcgcgcg gcacctggat ggcgcgacgc tgctgctcag catcagcgcg  
300



accgacggct atatcagccc gagctgggtac gccgacccgc agggaccaca gt  
352

<210> 754

<211> 91

<212> PRT

<213> Homo sapiens

<400> 754

Met	His	Pro	Asn	Arg	Ala	Phe	Arg	Phe	Ala	Asp	Asp	Val	Ser	Met	Leu
1				5					10					15	
Asp	Phe	Ala	Ala	Lys	Arg	Ala	Phe	Ala	His	Ile	Phe	Val	Ser	Thr	Pro
		20						25				30			
Glu	Gly	Pro	Met	Val	Ala	His	Ala	Pro	Val	Thr	Pro	Phe	Asp	Gly	Ala
		35					40					45			
Phe	Arg	Phe	His	Val	Ala	Arg	Gly	Asn	Arg	Ile	Ala	Arg	His	Leu	Asp
	50					55				60					
Gly	Ala	Thr	Leu	Leu	Leu	Ser	Ile	Ser	Ala	Thr	Asp	Gly	Tyr	Ile	Ser
65			70						75					80	
Pro	Ser	Trp	Tyr	Ala	Asp	Pro	Gln	Gly	Pro	Gln					
			85						90						

<210> 755

<211> 301

<212> DNA

<213> Homo sapiens

<400> 755

tgggatgcag ggtctttctt ctccaaggat ttcattcctg gagggagaaa agggccccag  
60  
ctgtctgcc tcaaaccggg ttgccgggct ggagctcctc ccaggcccgt gtgaggaaga  
120  
gcaaaggccg gcaggggctc gatgggacca gtcgctcgct caggcccagg aaaaccacac  
180  
agctgggggc tgtcaggatt ggaccagggt caggccggcc aggcgatggc gggaaaagca  
240  
ggcccactct gcagacctca atgtctcagg tgcactgcag ggcaaccccg cctaccccg  
300  
g  
301

<210> 756

<211> 99

<212> PRT

<213> Homo sapiens

<400> 756

Met	Gln	Gly	Leu	Ser	Ser	Pro	Arg	Ile	Ser	Phe	Leu	Glu	Gly	Glu	Lys
1				5					10					15	
Gly	Pro	Ser	Cys	Leu	Pro	Ser	Asn	Arg	Val	Ala	Gly	Leu	Glu	Leu	Leu
		20						25				30			
Pro	Gly	Pro	Cys	Glu	Glu	Glu	Gln	Arg	Pro	Ala	Gly	Ala	Arg	Trp	Asp
		35					40					45			
Gln	Ser	Leu	Ala	Gln	Ala	Gln	Glu	Asn	His	Thr	Ala	Gly	Gly	Cys	Gln

50                      55                      60  
 Asp Trp Thr Arg Val Arg Pro Ala Arg Arg Trp Arg Glu Lys Gln Ala  
 65                      70                      75                      80  
 His Ser Ala Asp Leu Asn Val Ser Gly Ala Leu Gln Gly Asn Pro Ala  
                     85                      90                      95  
 Tyr Pro Gly

<210> 757  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<400> 757  
 actgaggcga tcgccagagg ggtgggcgtg cgagggctgc tcaacatcca gttcgccctg  
 60  
 gtctccgatg ttctctacgt catcgaggcc aaccccaggg catcgcgac agtccccttc  
 120  
 gtctcaaagg catccggcgt gcagctcgcc aaagcggcgg ccctcatcat gacaggggag  
 180  
 acgatcgect cgctcaggcg ctccggccac ctgcccaggg ccgacgccgc cgtcaccgat  
 240  
 cccgatgacc cgatcgccgt caaggaggcg gtcctaccct tcaaacgatt ccgcaccacc  
 300  
 gagggacgcg t  
 311

<210> 758  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 758  
 Thr Glu Ala Ile Ala Arg Gly Val Gly Val Arg Gly Leu Leu Asn Ile  
 1                      5                      10                      15  
 Gln Phe Ala Leu Val Ser Asp Val Leu Tyr Val Ile Glu Ala Asn Pro  
                     20                      25                      30  
 Arg Ala Ser Arg Thr Val Pro Phe Val Ser Lys Ala Ser Gly Val Gln  
                     35                      40                      45  
 Leu Ala Lys Ala Ala Ala Leu Ile Met Thr Gly Glu Thr Ile Ala Ser  
                     50                      55                      60  
 Leu Arg Arg Ser Gly His Leu Pro Glu Ala Asp Ala Ala Val Thr Asp  
 65                      70                      75                      80  
 Pro Asp Asp Pro Ile Ala Val Lys Glu Ala Val Leu Pro Phe Lys Arg  
                     85                      90                      95  
 Phe Arg Thr Thr Glu Gly Arg  
                     100

<210> 759  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 759

gtgcacaccg gcaagctggt gtggaactgg gacagcggca acccggacga cactacgccg  
60  
attgccgagg gcaagaccta caccgcgaac tcgccgaaca tgtggtccat gttcgcgcgc  
120  
gacgaaaaac tcggcatgct ctacctgccg atgggcaacc agaccccga ccagttcggg  
180  
ggctaccgca cgctgcgctc ggaactgcac gctgccggcc tgacagcgct ggatatcgac  
240  
actggtaaag tgcgctggca ctaccagttc acccaccatg acctgtggga catggacgtg  
300  
ggcggccagc cgagcctgat cgacatcaag accgccgcgc gcgtgaaaca agccgtgatg  
360  
gcctcgacca agcaaggcag catctacgcg t  
391

&lt;210&gt; 760

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 760

Val	His	Thr	Gly	Lys	Leu	Val	Trp	Asn	Trp	Asp	Ser	Gly	Asn	Pro	Asp
1				5					10					15	
Asp	Thr	Thr	Pro	Ile	Ala	Glu	Gly	Lys	Thr	Tyr	Thr	Arg	Asn	Ser	Pro
			20					25						30	
Asn	Met	Trp	Ser	Met	Phe	Ala	Val	Asp	Glu	Lys	Leu	Gly	Met	Leu	Tyr
		35					40					45			
Leu	Pro	Met	Gly	Asn	Gln	Thr	Pro	Asp	Gln	Phe	Gly	Gly	Tyr	Arg	Thr
	50					55					60				
Pro	Ala	Ser	Glu	Leu	His	Ala	Ala	Gly	Leu	Thr	Ala	Leu	Asp	Ile	Asp
65					70					75				80	
Thr	Gly	Lys	Val	Arg	Trp	His	Tyr	Gln	Phe	Thr	His	His	Asp	Leu	Trp
			85					90					95		
Asp	Met	Asp	Val	Gly	Gly	Gln	Pro	Ser	Leu	Ile	Asp	Ile	Lys	Thr	Ala
			100					105					110		
Ala	Gly	Val	Lys	Gln	Ala	Val	Met	Ala	Ser	Thr	Lys	Gln	Gly	Ser	Ile
		115					120						125		
Tyr	Ala														
	130														

&lt;210&gt; 761

&lt;211&gt; 324

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 761

cctaggtagg cccaaagggg cctaactttc ttgetgcctt ggtggagcaa gaaatatctt  
60  
ctaggagagg ccaatccttc cctgccccac agctccttct ctgcaaagct cagggggcaa  
120  
tcaggtacct cctgcccag agggccccat ggttcctcgc ctaaggaagg cagggcgggg  
180  
cattgggagc cgttgacagc tgggctcagc tggggggagg ggtcagtttg ggagcaggtg  
240

cagatttcag ggaggggggg gcctaaaggg aagtagggat cttggtaggc tgcaaaattt  
 300  
 tcctcccat ccccatcca caga  
 324

<210> 762  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 762  
 Met Gly Asp Gly Glu Glu Asn Phe Ala Ala Tyr Gln Asp Pro Tyr Phe  
 1 5 10 15  
 Pro Leu Gly Pro Pro Leu Pro Glu Ile Cys Thr Cys Ser Gln Thr Asp  
 20 25 30  
 Pro Ser Pro Gln Leu Ser Pro Ala Val Asn Gly Ser Gln Cys Pro Ala  
 35 40 45  
 Leu Pro Ser Leu Gly Glu Glu Pro Trp Gly Pro Leu Gly Gln Glu Val  
 50 55 60  
 Pro Asp Cys Pro Leu Ser Phe Ala Glu Lys Glu Leu Trp Gly Arg Glu  
 65 70 75 80  
 Gly Leu Ala Ser Pro Arg Arg Tyr Phe Leu Leu His Gln Gly Ser Lys  
 85 90 95  
 Lys Val Arg Pro Leu Trp Ala Tyr Leu  
 100 105

<210> 763  
 <211> 301  
 <212> DNA  
 <213> Homo sapiens

<400> 763  
 acgcgttatg ggcgccccgg atggggcgatg cgctatccca cacctcgatg atggcggaca  
 60  
 tcctcggcgg tgtgctggaa gtggcggcca atatcgcatg tactgcgggc ggcaccgctg  
 120  
 ccgcggtggc cgccaccggc ttaccgagg ccaccggcgg cctcggctgc ttctgctgg  
 180  
 gcgctgcctt gggcaccatt gccggcctgg ccatgagcaa cattggcgcg gacacagggc  
 240  
 tgaccaagat atgcaatgcc ttaacaacg ccttatttgc gccaccgtg catgcgaaca  
 300  
 t  
 301

<210> 764  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 764  
 Met Phe Ala Cys Thr Val Gly Ala Asn Lys Ala Leu Leu Lys Ala Leu  
 1 5 10 15  
 His Ile Leu Val Ser Pro Val Ser Ala Pro Met Leu Leu Met Ala Arg

20 25 30  
 Pro Ala Met Val Pro Lys Ala Ala Pro Ser Arg Lys Gln Pro Arg Pro  
 35 40 45  
 Pro Val Ala Ser Val Lys Pro Val Ala Ala Thr Ala Ala Ala Val Ala  
 50 55 60  
 Pro Ala Val Ile Ala Ile Leu Ala Ala Thr Ser Ser Thr Pro Pro Arg  
 65 70 75 80  
 Met Ser Ala Ile Ile Glu Val Trp Asp Ser Ala Ser Pro Ile Arg Ala  
 85 90 95  
 Ala His Asn Ala  
 100

<210> 765  
 <211> 831  
 <212> DNA  
 <213> Homo sapiens

<400> 765  
 ngcacactcc agcctctggt ctttctctcc ttgtgccttt gcccttacca cggttcctca  
 60  
 taacattggt gttcctgtat ttaaggccct ataaacaggg agatgcgcca cctcatcagt  
 120  
 agcctccaga atcacaatca ccagctgaaa ggggaggtcc tgagatataa gcggaaattg  
 180  
 agagaagccc agtctgacct gaacaagaca cgctgcgta gtggtagtgc ctcctgcag  
 240  
 tcccagtcta gtactgagga cccgaaggat gagcctgcgg agctaaaacc agattctggg  
 300  
 gacttacct cccagtcctc agcttcaaag gcattctcagg aggatgccaa tgaaatcaag  
 360  
 tctaaacggg atgaagaaga acgagaacga gaaaggaggg agaaggagag ggaacgagaa  
 420  
 agagaacggg agaaggagaa ggagagagaa cgagagaagc agaagctaaa agagtcagaa  
 480  
 aaagagagag attctgctaa ggataaagag aaaggcaaac atgatgatgg acggaaaaag  
 540  
 gaagcagaaa ttatcaaaca attgaagatt gaactcaaga aggcacagga gagccaaaag  
 600  
 gagatgaaac tattgctgga tatgtaccgt tctgcccaca aggaacagag agacaaagtt  
 660  
 cagctgatgg cagctgagaa gaagtctaag gcagagttgg aagatctaag gcaaagactc  
 720  
 aaggatctgg aagataaaga gaagaaagag aacaagaaaa tggctgatga ggatgccttg  
 780  
 aggaagatcc gggcagtgga ggagcagata gaatacctac agaagaagct a  
 831

<210> 766  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 766  
 Met Arg His Leu Ile Ser Ser Leu Gln Asn His Asn His Gln Leu Lys

1	5	10	15
Gly Glu Val	Leu Arg Tyr Lys Arg	Lys Leu Arg Glu Ala Gln	Ser Asp
20	25	30	
Leu Asn Lys	Thr Arg Leu Arg Ser Gly	Ser Ala Leu Leu Gln	Ser Gln
35	40	45	
Ser Ser Thr	Glu Asp Pro Lys Asp Glu	Pro Ala Glu Leu Lys	Pro Asp
50	55	60	
Ser Gly Asp	Leu Ser Ser Gln Ser Ser	Ala Ser Lys Ala Ser	Gln Glu
65	70	75	80
Asp Ala Asn	Glu Ile Lys Ser Lys Arg	Asp Glu Glu Glu Arg	Glu Arg
85	90	95	
Glu Arg Arg	Glu Lys Glu Arg Glu Arg	Glu Arg Glu Lys	Glu
100	105	110	
Lys Glu Arg	Glu Arg Glu Lys Gln Lys	Leu Lys Glu Ser	Glu Lys Glu
115	120	125	
Arg Asp Ser	Ala Lys Asp Lys Glu Lys	Gly Lys His Asp	Asp Gly Arg
130	135	140	
Lys Lys Glu	Ala Glu Ile Ile Lys Gln	Leu Lys Ile Glu	Leu Lys Lys
145	150	155	160
Ala Gln Glu	Ser Gln Lys Glu Met Lys	Leu Leu Leu Asp	Met Tyr Arg
165	170	175	
Ser Ala Pro	Lys Glu Gln Arg Asp Lys	Val Gln Leu Met	Ala Ala Glu
180	185	190	
Lys Lys Ser	Lys Ala Glu Leu Glu Asp	Leu Arg Gln Arg	Leu Lys Asp
195	200	205	
Leu Glu Asp	Lys Glu Lys Lys Glu Asn	Lys Lys Met Ala	Asp Glu Asp
210	215	220	
Ala Leu Arg	Lys Ile Arg Ala Val Glu	Glu Gln Ile Glu Tyr	Leu Gln
225	230	235	240
Lys Lys Leu			

&lt;210&gt; 767

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 767

gctagctcgc tcgcactcat tctcgggagg cttccccgcg ccggccgcgt cccgcccgc  
 60  
 ccccggcacc agaagtctct ctgcgcgtcc gacggcgaca tgggcgtccc cacggccccg  
 120  
 gaggcggca gctggcgctg gggatccctg ctcttcgctc tcttcttggc tgcgtcccta  
 180  
 ggtccggtgg cagccttcaa ggtcgccacg ccgtattccc tgtatgtctg tcccgagggg  
 240  
 cagaacgtca ccctcacctg caggtctctt ggccctgtgg acaaagggca cgatgtgacc  
 300  
 ttctacaaga cgtggtaccg cagctcgagg ggcgaggtgc agacctgtc agagcgccgg  
 360  
 cccatccgca acctcacgtt ccaggacctt caactgcacc atggaggcca ccaggtgccc  
 420  
 aacaccagcc a  
 431

<210> 768  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 768  
 Met Gly Val Pro Thr Ala Pro Glu Ala Gly Ser Trp Arg Trp Gly Ser  
 1 5 10 15  
 Leu Leu Phe Ala Leu Phe Leu Ala Ala Ser Leu Gly Pro Val Ala Ala  
 20 25 30  
 Phe Lys Val Ala Thr Pro Tyr Ser Leu Tyr Val Cys Pro Glu Gly Gln  
 35 40 45  
 Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val Asp Lys Gly His  
 50 55 60  
 Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser Ser Arg Gly Glu Val  
 65 70 75 80  
 Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg Asn Leu Thr Phe Gln Asp  
 85 90 95  
 Leu His Leu His His Gly Gly His Gln Ala Ala Asn Thr Ser  
 100 105 110

<210> 769  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 769  
 tgtacacctc gtaatacatg atcgcgatac cgcccgcat gaccctaagc aactcattct  
 60  
 cgacttcgaa ctccatcaag tgatttttgc ggtcgacgaa tctggtttcc gtatgaaaga  
 120  
 acggtatgtt ttgtatgtcg cgccctgcc actcaaacct caccgtgtca cccacctcaa  
 180  
 aaaaatcccg ggtcggccca caaataaatc aattgcgccg ctctccgag ttcttccatg  
 240  
 tcaacgatct ccctggctg ctcaagccaa ggccctcgcg gccgtgggac tccaaggttg  
 300  
 acgttgaccc gactgatttc ggaccagttg gcgtcggtat tgggggcagg gtagttaccg  
 360  
 cccatgtcga tgatctacat cgccaccggc agcgtgtctt cgtagtcgtc atgcctgac  
 420  
 an  
 422

<210> 770  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 770  
 Met Phe Cys Met Ser Arg Pro Cys His Ser Asn Leu Thr Val Ser Pro  
 1 5 10 15  
 Thr Ser Lys Lys Ser Arg Val Gly Pro Gln Ile Asn Gln Leu Arg Arg

```

                20                25                30
Ser Ser Glu Phe Phe His Val Asn Asp Leu Pro Trp Leu Leu Lys Pro
      35                40                45
Arg Pro Ser Arg Pro Trp Asp Ser Lys Val Asp Val Asp Pro Thr Asp
      50                55                60
Phe Gly Pro Val Gly Val Gly Ile Gly Gly Arg Val Val Thr Ala His
65                70                75                80
Val Asp Asp Leu His Arg His Arg Gln Arg Val Phe Val Val Val Met
      85                90                95
Pro Asp Xaa

```

<210> 771  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

```

<400> 771
gcctacgcgc aattcctcgc gggatatggcg tttacaatg cgtctctcgg gtatgtgcat
60
gcaatggcgc atcagctggg cggtttttac gatctgccgc acggcgtgtg caatgcgata
120
ctgttgccac acgtgcagac gtttaactgc aaagtggcgg cctcgcgcct gcgtgattgc
180
gccaggcca tgggtgtcga tgtcagtcaa atgacagcag aacagggcgc acaggcgtgt
240
atgcagaga ttcgctctct ggcacgtcag gtgaatatcc cgggtgggatt gcgtgacctc
300
aacgtgaagg aagcggactt cccgattctg gcgaccaacg cgctaaaaga ccctgtgggt
360
ttgattaat
369

```

<210> 772  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

```

<400> 772
Ala Tyr Ala Gln Phe Leu Ala Gly Met Ala Phe Asn Asn Ala Ser Leu
1      5      10      15
Gly Tyr Val His Ala Met Ala His Gln Leu Gly Gly Phe Tyr Asp Leu
      20      25      30
Pro His Gly Val Cys Asn Ala Ile Leu Leu Pro His Val Gln Thr Phe
      35      40      45
Asn Cys Lys Val Ala Ala Ser Arg Leu Arg Asp Cys Ala Gln Ala Met
      50      55      60
Gly Val Asp Val Ser Gln Met Thr Ala Glu Gln Gly Ala Gln Ala Cys
65      70      75      80
Ile Ala Glu Ile Arg Ser Leu Ala Arg Gln Val Asn Ile Pro Val Gly
      85      90      95
Leu Arg Asp Leu Asn Val Lys Glu Ala Asp Phe Pro Ile Leu Ala Thr
      100     105     110
Asn Ala Leu Lys Asp Pro Val Gly Leu Ile Asn

```



115

120

<210> 773  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 773  
 ccgccgttgc cggcgggtgga ttttctggta ggcttgaatc agcgcttggc tgccgacatc  
 60  
 ggttacttga tccgcgtgga gccgggcgta caaactccgg aattcaccct ggaaaacgcc  
 120  
 tccggttcct gccgggattc ggcggtggtg ctggtgcaac tgctgcgcaa cctgggacctg  
 180  
 gcggcgcgat ttgtgtctgg ctatctgac caactgaccg ccgacgtcaa agccctcgac  
 240  
 ggcccgtccg gcaccgaggt ggatttcacc gacctgcatg cctggtgcga agtgtatttg  
 300  
 cccggcgcc  
 309

<210> 774  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 774  
 Pro Pro Leu Pro Ala Val Asp Phe Leu Val Gly Leu Asn Gln Arg Leu  
 1 5 10 15  
 Ala Ala Asp Ile Gly Tyr Leu Ile Arg Val Glu Pro Gly Val Gln Thr  
 20 25 30  
 Pro Glu Phe Thr Leu Glu Asn Ala Ser Gly Ser Cys Arg Asp Ser Ala  
 35 40 45  
 Trp Leu Leu Val Gln Leu Leu Arg Asn Leu Gly Leu Ala Ala Arg Phe  
 50 55 60  
 Val Ser Gly Tyr Leu Ile Gln Leu Thr Ala Asp Val Lys Ala Leu Asp  
 65 70 75 80  
 Gly Pro Ser Gly Thr Glu Val Asp Phe Thr Asp Leu His Ala Trp Cys  
 85 90 95  
 Glu Val Tyr Leu Pro Gly Ala  
 100

<210> 775  
 <211> 4125  
 <212> DNA  
 <213> Homo sapiens

<400> 775  
 nncaggatgg gcgcgaacaa tggcaaacag tacggcagtg agggcaaag cagctcgagc  
 60  
 atctcatctg acgtgagttc aagtacagat cacacgcca cttaaagcca gaagaatgtg  
 120  
 gctaccagcg aagactccga cctgagcatg cgcacactga gcacgcccag cccagccctg  
 180

atatgtccac cgaatctccc aggatttcag aatggaaggg gctcgtccac ctccctcgtcc  
240  
tccatcacccg gggagacggg ggccatgggtg cactccccgc ccccgacccg cctcacacac  
300  
ccgctcatcc ggctcgctc cagaccccag aaggatcagg ccagcataga ccggctccccg  
360  
gaccactcca tgggtgcagat cttctccttc ctgcccacca accagctgtg ccgctgcgcg  
420  
cgagtgtgcc gccgctggta caacctggcc tgggaccgcg ggctctggag gactatccgc  
480  
ctgacgggcg agaccatcaa cgtggaccgc gccctcaagg tgctgaccg cagactctgc  
540  
caggacaccc ccaacgtgtg tctcatgctg gaaaccgtaa ctgtcagtgg ctgcaggcgg  
600  
ctcacagacc gagggctgta caccatcgcc cagtgtgcc ccgaactgag gcgactggaa  
660  
gtctcaggct gttacaatat ctccaacgag gccgtctttg atgtgggtgc cctctgcctt  
720  
aatctggagc acctggatgt gtcaggatgc tccaaagtga cctgcacag cttgaccgcg  
780  
gaggcctcca ttaaaactgtc acccttgcac ggcaaacaga tttccatccg ctacctggac  
840  
atgacggact gcttcgtgct ggaggacgaa ggctgcaca ccacgcggc gcactgcacg  
900  
cagctcacc accctctacct gcgcgctgc gtccgcctga ccgacgaagg cctgcgctac  
960  
ctggtgatct actgcgcctc catcaaggag ctgagcgtca gcgactgccg cttcgtcagc  
1020  
gacttcggcc tgcgggagat cgccaagctg gaggccgcg tgcggtacct gagcatcgcg  
1080  
cactgcggcc gggtcaccga cgtgggcac cgctacgtgg ccaagtactg cagcaagctg  
1140  
cgctacctca acgcgagggg ctgcgagggc atcacggacc acggtgtgga gtacctcgcc  
1200  
aagaactgca ccaaactcaa atccctggat atcggaat gcccttttgt atccgacacg  
1260  
ggcctggagt gcctggccct gaactgctc aacctcaagc ggctcagcct caagtctgc  
1320  
gagagcatca ccggccaggg cttgcagatc gtggccgcca actgctttga cctccagacg  
1380  
ctgaatgtcc aggactgcga ggtctccgtg gaggcctgc gctttgtcaa acgccaactgc  
1440  
aagcgtgcg tcatcgagca caccaaccgc gctttcttct gaagggacag agttcatccg  
1500  
gcgttgatt cacacaaacc tgaacaaagc aaattttttt aaaagcagcg tatgtaagca  
1560  
ccgacacca ctcaaacag ctctttcttc cgggaagggt attaggaatc tggcctttat  
1620  
tttctctcat ttctcatggg caacagaggc caaagaaacg aagcaagaca aacagcaaac  
1680  
aggcattttg gtcaggatc ttgtaggcag tttctcttct cacaaaagat gtacttaagc  
1740  
aggctgatcg ctgttccttg agcaaggcgc ttactctct ccgctcaggc cccaaggcc  
1800

gccctttccc tcgcacacag gcccacccc cacagttcca ccccccccc ccaaggccac  
1860  
accctccctc cctagagcag cagcgaggat ccatcatcag aatcacagtg ctctccagac  
1920  
ctctctctta aactgcttca ttgacctaa gctctctctt caatcccaca cccatggaca  
1980  
ttcttgtcaa ctcaatacca tagcactttg cataggcaaa atacttttca ggccttttta  
2040  
aaaaattcat tacagcaaac agctggggaa ggacatgcag tcctccccc gctctgtcaa  
2100  
tgactatgac cttggccaaa gcacttcact gctctgggct gcagcttcca gactgaatc  
2160  
agaggccaca cagcccaaag attagettca tgtccattat agcattgagg gagcagagat  
2220  
accatacac agaagcacct tggcatagag caccaggca tcgacctctt ccaggagaac  
2280  
tgattctgtg gatggatgtg atttcaggag attgtgcagt gccagcatca gtgcataaag  
2340  
ggctctgtat gtcctttggc tgcaaatcac ccacttcctt gtgtttcagt gggagaattt  
2400  
cctctccac ctctccat cctcttttgc caggctggat gctgtcgtct ctgtacaca  
2460  
atactttctg cattcccccc tccacaccat cctagcgagg caccagcaca cctaataca  
2520  
gcaaagccca gatcccccca tcagttgctt ttactcagtg ttttcaaata ggagtaaagg  
2580  
cccttgcaat ttttaattaa caagcaaggc ccaagggaac acatgtctc aaaagttttt  
2640  
ctgacccctc gccttgaca cctggcatgc atcaggcaca tctgtctac agctggcaga  
2700  
gacagatgcc tcggttcttt gtcattcaga ttgcatttga cctcttctca tctatttatt  
2760  
tctttataca tccagacttc atcacatgaa gcctattggg gttaagtttg taagtgttta  
2820  
attgtgcaaa ttgccacct gtgtacctcc tccatgtctg tctgcgtgtt ttccacaaa  
2880  
gaatgcaaag cagacttcca ggtgtttaaa ttctgttcac tcaacaatgc cagatgaatg  
2940  
gaagagggaa cacactgaga tgacttagac tctgggtccac caaccagacc cttggaaagg  
3000  
aataactaaa tcattacaag gtatggattt taaatggatg aaacttcaa ttatcttatt  
3060  
tgatagaag tctatattct agcctcattt gcatgaagtc agatagccag aagaaattcc  
3120  
attgctggtt ttcacgaaat tcaattgtct tttgctaata aacacatggc cctttcccag  
3180  
attattctct agccaagccc cacctttgtt acgttgaaat cctcattta tttctctctc  
3240  
aaaatgccca ttatccaaat gcagaacctc tgcatttcca agccagttat gctgaatttg  
3300  
tcaaacttag acaccttga caactgcact cctactgtag gctcctgtgc atactgtctg  
3360  
cttctgtggg ggatggagag gttagtgtga tgagggtgtg tctgcccagg aggtttcttt  
3420

caaacatcat ggctcccat ccaatcaaca tcatcaaatt acatgtgtaa tcaaggctct  
 3480  
 gtgccatggg ggaaatgaat catttagcta ggccaggatc tagtgaaagc cacagagttt  
 3540  
 aaaaccatga aagaagttga aggcagcatt cctcagctct gtgacttggtg accctatttg  
 3600  
 aagtttcagg atttgggtgt cacaaaggat tgtccctaatt ccttggccct ggggtcttcc  
 3660  
 gagtgagctg gtttaatact ctgagaatga gcaggagat ccagagaatg aatccctgac  
 3720  
 cgcacacct aaactgtctt ccaaacatga gacaaagctg actgttcaca ctgattgccc  
 3780  
 agcacatacc gtcttgccag tttcttcttt tctccagtc tctgttcat ccattctgtt  
 3840  
 ctcccttggg gtgggaatct atgatggagg ttactgggga aacagctcag cagatttttg  
 3900  
 gagaccaaac caaaggctct actaggaaat ttatctgttt taaaacattg cttccttct  
 3960  
 ggctctgcta aattgaatgc tcattgtttg ttgtgttgt tttttaattc taatgttcaa  
 4020  
 atcactgcgt gctgtatgaa tctagaaagc cttaatttac taccaagaaa taaagcaata  
 4080  
 tgttcgtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4125

&lt;210&gt; 776

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 776

Tyr	Gly	Ser	Glu	Gly	Lys	Gly	Ser	Ser	Ser	Ile	Ser	Ser	Asp	Val	Ser
1				5					10					15	
Ser	Ser	Thr	Asp	His	Thr	Pro	Thr	Lys	Ala	Gln	Lys	Asn	Val	Ala	Thr
			20					25					30		
Ser	Glu	Asp	Ser	Asp	Leu	Ser	Met	Arg	Thr	Leu	Ser	Thr	Pro	Ser	Pro
		35				40						45			
Ala	Leu	Ile	Cys	Pro	Pro	Asn	Leu	Pro	Gly	Phe	Gln	Asn	Gly	Arg	Gly
	50					55					60				
Ser	Ser	Thr	Ser	Ser	Ser	Ser	Ile	Thr	Gly	Glu	Thr	Val	Ala	Met	Val
65					70				75					80	
His	Ser	Pro	Pro	Pro	Thr	Arg	Leu	Thr	His	Pro	Leu	Ile	Arg	Leu	Ala
				85				90						95	
Ser	Arg	Pro	Gln	Lys	Asp	Gln	Ala	Ser	Ile	Asp	Arg	Leu	Pro	Asp	His
			100				105						110		
Ser	Met	Val	Gln	Ile	Phe	Ser	Phe	Leu	Pro	Thr	Asn	Gln	Leu	Cys	Arg
		115					120					125			
Cys	Ala	Arg	Val	Cys	Arg	Arg	Trp	Tyr	Asn	Leu	Ala	Trp	Asp	Pro	Arg
	130					135					140				
Leu	Trp	Arg	Thr	Ile	Arg	Leu	Thr	Gly	Glu	Thr	Ile	Asn	Val	Asp	Arg
145				150					155					160	
Ala	Leu	Lys	Val	Leu	Thr	Arg	Arg	Leu	Cys	Gln	Asp	Thr	Pro	Asn	Val
			165					170						175	
Cys	Leu	Met	Leu	Glu	Thr	Val	Thr	Val	Ser	Gly	Cys	Arg	Arg	Leu	Thr

	180		185		190
Asp Arg Gly	Leu Tyr Thr	Ile Ala Gln	Cys Cys Pro	Glu Leu Arg	Arg
195		200		205	
Leu Glu Val	Ser Gly Cys	Tyr Asn Ile	Ser Asn Glu	Ala Val Phe	Asp
210		215		220	
Val Val Ser	Leu Cys Pro	Asn Leu Glu	His Leu Asp	Val Ser Gly	Cys
225		230		235	240
Ser Lys Val	Thr Cys Ile	Ser Leu Thr	Arg Glu Ala	Ser Ile Lys	Leu
	245		250		255
Ser Pro Leu	His Gly Lys	Gln Ile Ser	Ile Arg Tyr	Leu Asp Met	Thr
	260		265		270
Asp Cys Phe	Val Leu Glu	Asp Glu Gly	Leu His Thr	Ile Ala Ala	His
	275		280		285
Cys Thr Gln	Leu Thr His	Leu Tyr Leu	Arg Arg Cys	Val Arg Leu	Thr
	290		295		300
Asp Glu Gly	Leu Arg Tyr	Leu Val Ile	Tyr Cys Ala	Ser Ile Lys	Glu
305		310		315	320
Leu Ser Val	Ser Asp Cys	Arg Phe Val	Ser Asp Phe	Gly Leu Arg	Glu
	325		330		335
Ile Ala Lys	Leu Glu Ser	Arg Leu Arg	Tyr Leu Ser	Ile Ala His	Cys
	340		345		350
Gly Arg Val	Thr Asp Val	Gly Ile Arg	Tyr Val Ala	Lys Tyr Cys	Ser
	355		360		365
Lys Leu Arg	Tyr Leu Asn	Ala Arg Gly	Cys Glu Gly	Ile Thr Asp	His
	370		375		380
Gly Val Glu	Tyr Leu Ala	Lys Asn Cys	Thr Lys Leu	Lys Ser Leu	Asp
385		390		395	400
Ile Gly Lys	Cys Pro Leu	Val Ser Asp	Thr Gly Leu	Glu Cys Leu	Ala
	405		410		415
Leu Asn Cys	Phe Asn Leu	Lys Arg Leu	Ser Leu Lys	Ser Cys Glu	Ser
	420		425		430
Ile Thr Gly	Gln Gly Leu	Gln Ile Val	Ala Ala Asn	Cys Phe Asp	Leu
	435		440		445
Gln Thr Leu	Asn Val Gln	Asp Cys Glu	Val Ser Val	Glu Ala Leu	Arg
	450		455		460
Phe Val Lys	Arg His Cys	Lys Arg Cys	Val Ile Glu	His Thr Asn	Pro
465		470		475	480
Ala Phe Phe					

&lt;210&gt; 777

&lt;211&gt; 705

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 777

ggtaccatcg tttttaaac taattaagat attactcatt cttgttggtg cccaattcca  
 60  
 caccaatctg ctctttaatg ccagactgat ggctctaaca atccttatta actccttttt  
 120  
 gtggcttcaa ggaaaaacaa aaacctcttc tctcattcac cacctctagg ccaggagaaa  
 180  
 ttatttttgg ttcaggcttt cacagtgggg gtctgaaagt gaccagtcta gaaaaggatg  
 240

actcagcaaa aggagagctc tgaaggtccc tgaggcggca cgggccagca ttattaggtc  
 300  
 acatgggtatg acctgaaaca aatacgttct tcccaaatgt ggcaggaccg ggagagcttc  
 360  
 tcaccaggag ggaaccgccc caatgaccgc cggacgtcca gcaacacttg ttggtagtcc  
 420  
 ttgctcatct gccgtaggtt cttccctgat ataggaggtg ggtcattggc attgacattg  
 480  
 aggagcttgg gccacacttt tcgtctgac tcatcagtca ggagccctcc ttactgata  
 540  
 gccatgcgtc taagggcagc cacatcagtg ggatcactgt tcagagcctg gtgtatctct  
 600  
 aacactttct ttttcctttt ggcgttaaag tctgccttct ccgcgcgcgc gtcccagtgg  
 660  
 ccggaggtgg gccgtcccct gcgcactccg gaggccatcc ccggg  
 705

&lt;210&gt; 778

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 778

Met	Ala	Ser	Gly	Val	Arg	Arg	Gly	Arg	Pro	Thr	Ser	Gly	His	Trp	Asp
1				5					10					15	
Gly	Gly	Ala	Glu	Lys	Ala	Asp	Phe	Asn	Ala	Lys	Arg	Lys	Lys	Lys	Val
			20					25					30		
Leu	Glu	Ile	His	Gln	Ala	Leu	Asn	Ser	Asp	Pro	Thr	Asp	Val	Ala	Ala
		35					40					45			
Leu	Arg	Arg	Met	Ala	Ile	Ser	Glu	Gly	Gly	Leu	Leu	Thr	Asp	Glu	Ile
	50					55					60				
Arg	Arg	Lys	Val	Trp	Pro	Lys	Leu	Leu	Asn	Val	Asn	Ala	Asn	Asp	Pro
65					70				75					80	
Pro	Pro	Ile	Ser	Gly	Lys	Asn	Leu	Arg	Gln	Met	Ser	Lys	Asp	Tyr	Gln
			85						90					95	
Gln	Val	Leu	Leu	Asp	Val	Arg	Arg	Ser	Leu	Arg	Arg	Phe	Pro	Pro	Gly
			100					105					110		
Glu	Lys	Leu	Ser	Arg	Ser	Cys	His	Ile	Trp	Glu	Glu	Arg	Ile	Cys	Phe
		115					120					125			
Arg	Ser	Tyr	His	Val	Thr										

&lt;210&gt; 779

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 779

tccggacatg tgcaaacat tcaatgatgt ggtgcgtcga catggtgtgc atcactctgt  
 60  
 gactgtgagt gattctgagg ataccgttgc gccgtcccag ctggttcgat ccctcgtaa  
 120  
 cgccttgcct ttgaaggaac ccagtgggaa ggctagacca agtaaatatg aatcaccaaa  
 180

cgccagcaac ttcacgtca ggcattgtgc aactggcaaa gagggcactg atgatgagta  
 240  
 tgctaactca aactactact actcgatgtc tgccaatcga ctaggagacg aggaaacgga  
 300  
 ggaaatgata ggtttggtta cc  
 322

<210> 780  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 780  
 Met Cys Lys Gln Phe Asn Asp Val Val Arg Arg His Gly Val His His  
 1 5 10 15  
 Ser Val Thr Val Ser Asp Ser Glu Asp Thr Val Ala Pro Ser Gln Leu  
 20 25 30  
 Val Arg Ser Pro Arg Asn Ala Leu Pro Leu Lys Glu Pro Ser Gly Lys  
 35 40 45  
 Ala Arg Pro Ser Lys Tyr Glu Ser Pro Asn Ala Ser Asn Phe Ile Val  
 50 55 60  
 Arg His Val Ala Thr Gly Lys Glu Gly Thr Asp Asp Glu Tyr Ala Asn  
 65 70 75 80  
 Ser Asn Tyr Tyr Tyr Ser Met Ser Ala Asn Arg Leu Gly Asp Glu Glu  
 85 90 95  
 Thr Glu Glu Met Ile Gly Leu Ala Thr  
 100 105

<210> 781  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 781  
 nntcgcgtgc ctggaatgtg tgtctgtgta tgtgtgtgta tgtatgtgtg tatggaatgt  
 60  
 gtgtgtatgn gaatatgtgt gtgtatngaa atgtgtgtgt gtgtttggaa tgtgtgtatg  
 120  
 gaatgtgtgt ctgtgtatgg aatatgtgtg agtatngaa tgtgtgtgtg tgtttggaat  
 180  
 gtatcgaatg tgtgtctgtg tgtaaggaat gtgtgtgtat ggaatgtgtt tacgtgcatg  
 240  
 tgtctggaat gtgtgtgtat ggaatgtgtg tgtatgtgta tgngaattgt tgtgtgt  
 297

<210> 782  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 782  
 Xaa Arg Val Pro Gly Met Cys Val Cys Val Cys Met Tyr Val  
 1 5 10 15  
 Cys Met Glu Cys Val Cys Met Xaa Ile Cys Val Cys Met Xaa Met Cys

846



50                      55                      60  
 Phe Ala Arg Phe Asp Asp Thr Cys Leu His Arg Asp Ile Gln Gln Pro  
 65                      70                      75                      80  
 Gln Tyr Val His Arg Gln Leu Asp Gly His Arg Ala Gly Phe Val Gly  
                     85                      90                      95  
 Gln Leu His Lys Ala Leu Asn Gln Val Glu Gln Leu Gln Val Asp Val  
                     100                      105                      110  
 Gln Gly Ala Leu Val Arg Ala Val Leu Tyr Ile Asp Gln Val Ala Gln  
                     115                      120                      125  
 Val Gln Asp Leu Arg Ala Trp Gly Asn Gln Leu Asp Cys Phe Glu Val  
                     130                      135                      140  
 Ile Asp His His Leu Asp Arg Ile Thr Ala Gln Leu Glu His Ile Asp  
 145                      150                      155                      160  
 Gly Gly Leu Asp Gln Leu Ala Asp Gly Arg Val Gly Leu Glu Gln Leu  
                     165                      170                      175  
 Val Val Val Ala Gly Ala Asp Val Glu Ala Asp Gly Arg Arg  
                     180                      185                      190

&lt;210&gt; 785

&lt;211&gt; 408

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 785

accttggact acttcactat cgaccctcgg ctaggcgacg acgatgactt cgatcacctg  
 60  
 cttcaggccg cccacgctcg tggctgtgca gtactgctcg acgggggtggt caaccacgtc  
 120  
 tcgcgtcgca accgcacgtg gcaggatgcg cagagtgtcg ggccagattc agacgccggc  
 180  
 cgtatgggttc gctgggtgtga ggggcgcctc gacgttttcg aggggtcatag tgacctggtc  
 240  
 gcactcaacc acgacaaccc cgcagtgccg gaacatgtca cccggatcat gaactattgg  
 300  
 tgcggtcgcg gtgttgacgg ctggcggctg gacgccgcta ttccgtcaat cctgagttct  
 360  
 gggctgagggt gctgcctccg gtgcgagaga agcgcctga cgtgagga  
 408

&lt;210&gt; 786

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 786

Thr Leu Asp Tyr Phe Thr Ile Asp Pro Arg Leu Gly Asp Asp Asp Asp  
 1                      5                      10                      15  
 Phe Asp His Leu Leu Gln Ala Ala His Ala Arg Gly Leu Ser Val Leu  
                     20                      25                      30  
 Leu Asp Gly Val Val Asn His Val Ser Arg Arg Asn Arg Ile Val Gln  
                     35                      40                      45  
 Asp Ala Gln Ser Ala Gly Pro Asp Ser Asp Ala Gly Arg Met Val Arg  
                     50                      55                      60  
 Trp Cys Glu Gly Arg Leu Asp Val Phe Glu Gly His Ser Asp Leu Val

```

65           70           75           80
Ala Leu Asn His Asp Asn Pro Ala Val Arg Glu His Val Thr Arg Ile
           85           90           95
Met Asn Tyr Trp Cys Gly Arg Gly Val Asp Gly Trp Arg Leu Asp Ala
           100           105           110
Ala Ile Pro Ser Ile Leu Ser Ser Gly Leu Arg Cys Cys Leu Arg Cys
           115           120           125
Glu Arg Ser Ala Leu Thr
           130

```

<210> 787  
 <211> 310  
 <212> DNA  
 <213> Homo sapiens

```

<400> 787
acgcgtgaag gggaatgaaa gggtttttcc tggatcaaaa tgatgcttgt ggcagacaca
60
gttggaaacca cagacgatgc cacgcttgtg tcagcagtgc gacactggcc cacgtggcgt
120
ccttgggtctc tcctcattgc tgccgtcact gtgtgctggg catgccctgc agttacccca
180
aagctttatg tcacaacatt gaggctggcg gagaaagacc ggcccccttca ccccacctta
240
gacttcctgg aaggggccgc cgggtccaca acctggcccg ttaactcctt gggcagctgc
300
tggggggagaa
310

```

<210> 788  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 788
Met Met Leu Val Ala Asp Thr Val Gly Thr Thr Asp Asp Ala Thr Leu
1           5           10           15
Val Ser Ala Val Arg His Trp Pro Thr Trp Arg Pro Trp Ser Leu Leu
           20           25           30
Ile Ala Ala Val Thr Val Cys Trp Ala Cys Pro Ala Val Thr Pro Lys
           35           40           45
Leu Tyr Val Thr Thr Leu Arg Leu Ala Glu Lys Asp Arg Pro Leu His
           50           55           60
Pro Thr Leu Asp Phe Leu Glu Gly Pro Pro Gly Ser Thr Thr Trp Pro
65           70           75           80
Val Asn Ser Leu Gly Ser Cys Trp Gly Arg
           85           90

```

<210> 789  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 789

acgcgtgaag ttgcagcagc aagcaatctg cctcgcttct ggtgcccacc gaaaccaagg  
 60  
 tctgccagac agcagcgctg ggacctctcc cctccccagc aggatgggccc ggctctggaa  
 120  
 gcacgaggtg ttccaaagtg caaacaagct gctgttaaata aattattccc aaacgccaaa  
 180  
 gcccttgctg gtttgcttgc ttgctttttt ctttttttgc ctgcacaga tatcgctagg  
 240  
 gcagagtatt gacatttcgt tttctttttg ttatgggtga taaagcacgg tgtttcttgt  
 300  
 gagtgtatgc ctgtatttcc ctgcagagct gattgccagt ccattttctt ctatcccatc  
 360  
 cccatttttc  
 369

<210> 790  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 790  
 Met Asp Trp Gln Ser Ala Leu Gln Gly Asn Thr Gly Ile His Ser Gln  
 1 5 10 15  
 Glu Thr Pro Cys Phe Ile Thr His Asn Lys Lys Lys Thr Lys Cys Gln  
 20 25 30  
 Tyr Ser Ala Leu Ala Ile Ser Val Arg Gly Lys Lys Arg Lys Lys Gln  
 35 40 45  
 Ala Ser Lys Pro Ala Arg Ala Leu Ala Phe Gly Asn Asn Tyr Leu Thr  
 50 55 60  
 Ala Ala Cys Leu His Phe Gly Thr Pro Arg Ala Ser Arg Ala Gly Pro  
 65 70 75 80  
 Ser Cys Trp Gly Gly Glu Arg Ser Gln Arg Cys Cys Leu Ala Asp Leu  
 85 90 95  
 Gly Phe Gly Gly His Gln Lys Arg Gly Arg Leu Leu Ala Ala Thr  
 100 105 110  
 Ser Arg

<210> 791  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 791  
 nctctgacca aaaggaaggt atatgaaaac acaacactag gtttcattgt tgaagttgaa  
 60  
 ggtcttccag ttcttggtgt gaaatgggtat cgaaataaat ctttactaga gccagatgaa  
 120  
 agaatcaaaa tggaaagagt gggtaatgtg tgttactagg aaatttctaa cattcaaaaa  
 180  
 ggagaagggg gagagtacat gtgtcatgct gtaaacaatca taggggaagc aaagagcttt  
 240  
 gcaaatgtag acataatgcc ccaggaagaa agagtgggtg cactaccacc tccagtaaca  
 300

catcagcatg tcattggagtt tgatttgga cacaccacat catcaagaac accttctcct  
 360  
 caagaaattg tcctggaagt tgaattaagt gaaaaagacg ttaaagaatt tgagaagcag  
 420

<210> 792  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 792  
 Thr Lys Arg Lys Val Tyr Glu Asn Thr Thr Leu Gly Phe Ile Val Glu  
 1 5 10 15  
 Val Glu Gly Leu Pro Val Pro Gly Val Lys Trp Tyr Arg Asn Lys Ser  
 20 25 30  
 Leu Leu Glu Pro Asp Glu Arg Ile Lys Met Glu Arg Val Gly Asn Val  
 35 40 45  
 Cys Ser Leu Glu Ile Ser Asn Ile Gln Lys Gly Glu Gly Gly Glu Tyr  
 50 55 60  
 Met Cys His Ala Val Asn Ile Ile Gly Glu Ala Lys Ser Phe Ala Asn  
 65 70 75 80  
 Val Asp Ile Met Pro Gln Glu Glu Arg Val Val Ala Leu Pro Pro Pro  
 85 90 95  
 Val Thr His Gln His Val Met Glu Phe Asp Leu Glu His Thr Thr Ser  
 100 105 110  
 Ser Arg Thr Pro Ser Pro Gln Glu Ile Val Leu Glu Val Glu Leu Ser  
 115 120 125  
 Glu Lys Asp Val Lys Glu Phe Glu Lys Gln  
 130 135

<210> 793  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 793  
 nacgcgtgcc ggttctcggg aattcattat gggaatgtgc gcgttggtga gatgctcaga  
 60  
 ccgcgaacag tactgcggga acccaaacga tcatttttaa cccagacgt ccctgaacca  
 120  
 aagccaaagt ctacaggtca ctggggcaga ggccgccga aaccagcttc ccctcccggc  
 180  
 ctaggcgcgc caggtccccg ccagccggg gcgatccttt ggtcggacag tgaggttggg  
 240  
 agcccaccgc acccaagtcc gccgcacca cccggcgag gcgacccccg acgggcagcc  
 300  
 gctcaccttc tcctggcccc ggcttcagga aaactgctg gaggtggcg gggttcccta  
 360  
 gcggaggtcg ggcgcgggc ttgcgcctg cctcagtctc cccatccgtg gcccggggga  
 420  
 tggagcccgc tgcgcgaga ggctcgga ggtccagcc aggtgccctg gaacgtgga  
 479

<210> 794

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 794

```

Xaa Ala Cys Arg Phe Ser Glu Ile His Tyr Gly Asn Val Arg Val Val
 1           5           10          15
Glu Met Leu Arg Pro Arg Thr Val Leu Arg Glu Pro Lys Arg Ser Phe
 20          25          30
Leu Thr Pro Asp Val Pro Glu Pro Lys Pro Lys Ser Thr Gly His Trp
 35          40          45
Gly Arg Gly Arg Pro Lys Pro Ala Ser Pro Pro Gly Leu Gly Ala Pro
 50          55          60
Gly Pro Arg Pro Ala Gly Ala Ile Leu Trp Ser Asp Ser Glu Val Gly
 65          70          75          80
Ser Pro Pro His Pro Ser Pro Pro His Pro Pro Gly Ala Gly Asp Pro
 85          90          95
Arg Arg Ala Ala Ala His Leu Leu Leu Ala Pro Ala Ser Gly Lys Leu
100          105          110
Pro Gly Gly Gly Arg Gly Ser Leu Ala Glu Ala Gly Arg Arg Ala Ser
115          120          125
Arg Leu Pro Gln Ser Pro His Pro Trp Pro Gly Gly Trp Ser Pro Leu
130          135          140
Arg Ala Glu Ala Ala Ala Gly Pro Ser Gln Val Pro Trp Asn Val
145          150          155

```

&lt;210&gt; 795

&lt;211&gt; 1418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 795

```

gccggcggcg gggaggccgg ggccctgcagg cccccggtac gacaagatec ggactccggc
60
ccggactacg aggcgctgcc ggctggagcc actgtcacca cgcacatggt ggcaggcgcc
120
gtggcaggga tcctggagca ctgcgtgatg taccatcatg actgcgtcaa gaccgggatg
180
cagagtctac agcctgaccc agctgcccgc tatcgcaatg tgttggaggc cctctggagg
240
attataagaa cggagggcct atggaggccc atgagggggc tgaacgtcac agcaacaggc
300
gcagggcctg cccacgccct ttattttgcc tgctacgaaa agttaaaaaa gacattgagt
360
gatgtaatcc accctggggg caatagccat attgccaatg gtgcggccgg gtgtgtggca
420
acattacttc atgatgcagc catgaaccct gcggaaggct gatctgctga cttggggctc
480
tgaatctgga tactctccat caccggttgg ctgctgtcac catttccttc ctcgttgatg
540
gcactactag tggtaagca gaggatgcag atgtacaact caccatacca ccgggtgaca
600
gactgtgtac gggcagtggt gcaaaatgaa ggggccgggg ccttttaccg cagctacacc
660

```

acccagctga ccatgaacgt tcctttccaa gccattcact tcatgaccta tgaattcctg  
 720  
 caggagcact ttaaccccca gagacggtac aacccaagct cccacgtcct ctctggagct  
 780  
 tgcgcaggag ctgtagctgc cgcagccaca accccactgg acgtttgcaa aacactgctc  
 840  
 aacacccagg agtccttggc tttgaactca cacattacag gacatatcac aggcattggt  
 900  
 agtgccctta ggacggtata tcaagtaggt ggggtgaccg cctatttcg aggggtgcag  
 960  
 gccagagtaa tttaccagat cccctccaca gccatcgcat ggtctgtgta tgagttcttc  
 1020  
 aaatacctaa tctaataaag gcaagaagag tggagggctg gcaagtgaag tagcactgaa  
 1080  
 cgaagccagg gggtcagatg acactgctgc atcctggtca cattctctgt ctctggaat  
 1140  
 gctccacact caagtggagt tagaaggaag gtagaggggc tctccccag gattttggtg  
 1200  
 ttttgactaa caccagttcc tgccaacctc tgttgccacc accttcctt ccaggcccta  
 1260  
 agcagtgca gaaagcaca ccacagcacc tttgataacc tctctccatc ctgggcctga  
 1320  
 tgacctgctc tagactgtta tagagggata agcagctcat tcccctggtt cctaataaaa  
 1380  
 agcctttaa ttaaaaaaaaa aaaaaaaaaa aaaaaaaa  
 1418

&lt;210&gt; 796

&lt;211&gt; 176

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 796

Met	Ala	Leu	Leu	Val	Lys	Gln	Arg	Met	Gln	Met	Tyr	Asn	Ser	Pro
1			5					10					15	
Tyr	His	Arg	Val	Thr	Asp	Cys	Val	Arg	Ala	Val	Trp	Gln	Asn	Glu
			20					25				30		
Ala	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn
			35				40				45			
Pro	Phe	Gln	Ala	Ile	His	Phe	Met	Thr	Tyr	Glu	Phe	Leu	Gln	Glu
			50				55				60			
Phe	Asn	Pro	Gln	Arg	Arg	Tyr	Asn	Pro	Ser	Ser	His	Val	Leu	Ser
						70				75				80
Ala	Cys	Ala	Gly	Ala	Val	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp
					85				90					95
Cys	Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Ser	Leu	Ala	Leu	Asn	Ser
			100					105					110	
Ile	Thr	Gly	His	Ile	Thr	Gly	Met	Ala	Ser	Ala	Phe	Arg	Thr	Val
			115				120					125		
Gln	Val	Gly	Gly	Val	Thr	Ala	Tyr	Phe	Arg	Gly	Val	Gln	Ala	Arg
			130				135				140			
Ile	Tyr	Gln	Ile	Pro	Ser	Thr	Ala	Ile	Ala	Trp	Ser	Val	Tyr	Glu
						150				155				160
Phe	Lys	Tyr	Leu	Ile	Thr	Lys	Arg	Gln	Glu	Glu	Trp	Arg	Ala	Gly

165

170

175

&lt;210&gt; 797

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 797

aaatttaccg gcggcaaaac ccacgtcacc gactacacca acgcctcgcg caccatgctc  
 60  
 ttcaacatcc acacgctgga gtgggatgcg aagatgctgg agattctcga cgtgccgcgc  
 120  
 gagatgctgc cggaagttaa gtcgtcttca gaaatctacg gccgcaccaa aagcggatc  
 180  
 gctatcggcg gcatcgcggg cgaccaacag gctgctctgt tcggccagat gtgctggaa  
 240  
 gccgggcagg ccaagaacac ttatggcacc ggctgcttcc tgctgatgaa caccggcgac  
 300  
 aaagccgtca aatccaaaca cggcatgctc accaccatcg cctgcggtcc acgcggcgaa  
 360  
 gtggcttatg cgctggaagg cgcggtgttc aacgggtggt cccccgtgca gtggctgcgt  
 420  
 gatgagctga agatcatcgc ggacgccacc gacaccgaat acttcgccgg caaggtcaag  
 480  
 gacagcaacg gcgtctacct ggtgccggcc ttaccggcc tgggcgctcc gtactgggac  
 540  
 ccgtatgccc gtggcgcttt gtttggcctg actcgtggcg tacgc  
 585

&lt;210&gt; 798

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 798

Lys	Phe	Thr	Gly	Gly	Lys	Thr	His	Val	Thr	Asp	Tyr	Thr	Asn	Ala	Ser
1				5					10					15	
Arg	Thr	Met	Leu	Phe	Asn	Ile	His	Thr	Leu	Glu	Trp	Asp	Ala	Lys	Met
			20					25					30		
Leu	Glu	Ile	Leu	Asp	Val	Pro	Arg	Glu	Met	Leu	Pro	Glu	Val	Lys	Ser
		35					40				45				
Ser	Ser	Glu	Ile	Tyr	Gly	Arg	Thr	Lys	Ser	Gly	Ile	Ala	Ile	Gly	Gly
	50					55				60					
Ile	Ala	Gly	Asp	Gln	Gln	Ala	Ala	Leu	Phe	Gly	Gln	Met	Cys	Val	Glu
65				70					75					80	
Ala	Gly	Gln	Ala	Lys	Asn	Thr	Tyr	Gly	Thr	Gly	Cys	Phe	Leu	Leu	Met
			85					90					95		
Asn	Thr	Gly	Asp	Lys	Ala	Val	Lys	Ser	Lys	His	Gly	Met	Leu	Thr	Thr
		100					105					110			
Ile	Ala	Cys	Gly	Pro	Arg	Gly	Glu	Val	Ala	Tyr	Ala	Leu	Glu	Gly	Ala
	115					120					125				
Val	Phe	Asn	Gly	Gly	Ser	Pro	Val	Gln	Trp	Leu	Arg	Asp	Glu	Leu	Lys
	130					135				140					
Ile	Ile	Ala	Asp	Ala	Thr	Asp	Thr	Glu	Tyr	Phe	Ala	Gly	Lys	Val	Lys

145		150		155		160
Asp Ser Asn Gly Val Tyr Leu Val Pro Ala Phe Thr Gly Leu Gly Ala						
	165		170		175	
Pro Tyr Trp Asp Pro Tyr Ala Arg Gly Ala Leu Phe Gly Leu Thr Arg						
	180		185		190	
Gly Val Arg						
195						

&lt;210&gt; 799

&lt;211&gt; 2152

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 799

```

nntttttttt tttttttgat ggtgcatgta gttttattta tgtgttttca tctggaaaac
60
caagtgtccc agcagcatga ctgaacatca ctacttccc ctacttgatc tacaaggcca
120
acgccgagag cccagaccag gattccaaac acactgcacg agaatattgt ggatccgctg
180
tcaggtaagt gtccgtcact gaccagacg ctgttacgtg gcacatgact gtacagtgcc
240
acgtaacagc actgtacttt tctcccataa acagttacct gccatgtatc tacatgattc
300
agaacatttt gaacagttaa ttctgacact tgaataatcc catcaaaaac cgtaaaatca
360
ctttgatggt gtaacgacaa catagcatca ctttacgaca gaatcatctg gaaaaacaga
420
acaacgaata catacatctt aaaaaatgct ggggtggggc aggcacagct cagcctgta
480
atcccagcac tttgggaggc tgaggcgggt ggatcacgta atcccagcac tttgaggggc
540
agaggtggac agatcatgag gtcaagagat caagaccatc ctgggtcaaaa tgggtgaaac
600
ccgtctctac taaaaataca aaaattagct gagcttagtg gcacacacct gtagtcccag
660
ctacttggga ggctgaggca ggagaatcgc ttgaacctcag gagacacagg ctgcagtgc
720
tcgagatcac gccactgcac tccagcctgg cgacagagcg agactccatc tcaaaaaaaa
780
aaaccaacaa aaaaactggg gtgaaaatct aacggataat tcagcattgc cgcataaaaa
840
cctccgcaaa accggccaaa caaacgcgga caggcggccc tggcgtcagc gcacgacagt
900
cacgtgggga ggggcagtgg ccaggtcggc cttggacggg tacaccacct tcaggctccc
960
ttccagatcc accaccgga cctgtctcac caccagaagg gagggcccgt cctttccagc
1020
actgggattc gttgtgggat ctggaagttg tccagagact gcacggcctt cagtatctga
1080
gagtgatect tctcttttat ttctaaagt gtactttttc atttctgcca ttttcagaat
1140
gagggcatcc atgacatcct tgcaaatctg cagactggtg gcacttggtta cttccaaaaa
1200

```



caaatcagaa gtcgttttct taacctttgt cttctcactg ttggttattg gtgggaagga  
 1260  
 aatcacatca ccgtctgcat ccacaagaca cgggtaattt tcatttccat ccagcaagt  
 1320  
 aaggatatctg tgcaggcccg acacactctg ccgcttcttc tgcttctctt gctcctcggc  
 1380  
 ctccagctgc agctgccgca ccagctcctt ggccttggtt tctttccgcc ccaaggggac  
 1440  
 aatcttgagg tctgtggggg gccggggcgca gtacagcagg ggccctttga cggcacggag  
 1500  
 ctctgtgggtg gcaaggggtg cagccgtcct cttctcacag agatcttcgt ggagcttggt  
 1560  
 ctgcgagggtg aggaagcgtt tgagtgcatt ccctggctgc aggtccatgc ctgcaccac  
 1620  
 ggccccaca atgtagggcc gcacatcccg gacctcgggg ctactctga ctgtcagagg  
 1680  
 tacgggggtt tcagagacgt gcaggaccct gagcagcagc cggccggcat ctcccacgtc  
 1740  
 ctgtctctcc ccataccac cttcccgctt ctgtctctc tccctctctt tctcgggt  
 1800  
 ctcttcttc tccgagcctt cggcacggcc cttgcccttc ccgccaccac ggctccgac  
 1860  
 gcgcaggtac tccaggatgg atctggtctg gcagccgctg accatcttct ccaggcgctt  
 1920  
 gtccctcagc ttgttccac ggaaattgat ctcttgagc ttggggcagt ccgcaagctc  
 1980  
 tgcagggtac tcgtcagctt ggttgttcga gaggtccaac gtcttgagcg aggccagggt  
 2040  
 ggcgatgtcg gggctgagtt ctcgaggcca gttgtcagca gccgccagtt cactgagcag  
 2100  
 gggcagcgcg ccggggcgaa agagctcggc gggaaaggag tctaggcaat tg  
 2152

&lt;210&gt; 800

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 800

Cys	Cys	Asn	Asp	Asn	Ile	Ala	Ser	Leu	Tyr	Asp	Arg	Ile	Ile	Trp	Lys
1				5					10					15	
Asn	Arg	Thr	Thr	Asn	Thr	Tyr	Ile	Leu	Lys	Asn	Ala	Gly	Val	Gly	Gln
		20						25					30		
Ala	Gln	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp	Glu	Ala	Glu	Ala	Gly
		35					40					45			
Gly	Ser	Arg	Asn	Pro	Ser	Thr	Leu	Arg	Gly	Arg	Gly	Gly	Gln	Ile	Met
	50					55				60					
Arg	Ser	Arg	Asp	Gln	Asp	His	Pro	Gly	Gln	Asn	Gly	Glu	Thr	Pro	Ser
65				70					75				80		
Leu	Leu	Lys	Ile	Gln	Lys	Leu	Ala	Glu	Leu	Ser	Gly	Thr	His	Leu	
				85					90					95	

&lt;210&gt; 801

&lt;211&gt; 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 801

```

nntcatgaat cggtataaac acaatgggta gtgtatatca tatctatagg agatactatg
60
tatcaaatat atcagctgtc tttttcttat gaaacaaaag aagtgttaaa gaatatttct
120
gtaacatttc ctaccaataa aataacagcc ataattggac cgaatggatg tggtaagtct
180
accctactta gccatctata tcgacttcat tcaacaaaaa acaaaatcac attaaacgga
240
aaaccttttag agtcttataa aggtcgcgaa tttgctcaat tggtagcagt cttaacacaa
300
tctagagacg ctatgattga tgattttctc gtaaaagata tcgttctcat gggacgggat
360
ccgtacaaac aacactttgg cacctatagt tctgaagatg ttaaaattgc agagcattat
420
atgn
424

```

&lt;210&gt; 802

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 802

```

Met Tyr Gln Ile Asn Gln Leu Ser Phe Ser Tyr Glu Thr Lys Glu Val
 1             5             10             15
Leu Lys Asn Ile Ser Val Thr Phe Pro Thr Asn Lys Ile Thr Ala Ile
      20             25             30
Ile Gly Pro Asn Gly Cys Gly Lys Ser Thr Leu Leu Ser His Leu Tyr
      35             40             45
Arg Leu His Ser Thr Lys Asn Lys Ile Thr Leu Asn Gly Lys Pro Leu
      50             55             60
Glu Ser Tyr Lys Gly Arg Glu Phe Ala Gln Leu Val Ala Val Leu Thr
      65             70             75             80
Gln Ser Arg Asp Ala Met Ile Asp Asp Phe Leu Val Lys Asp Ile Val
      85             90             95
Leu Met Gly Arg Asp Pro Tyr Lys Gln His Phe Gly Thr Tyr Ser Ser
      100            105            110
Glu Asp Val Lys Ile Ala Glu His Tyr Met
      115            120

```

&lt;210&gt; 803

&lt;211&gt; 6863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 803

```

gcgcggcccg gctggcgcgc tcgcacccct ctctccccc cgcctctttcc taggaaagct
60
gagcctcata gcttcgggga gaagggtttc cggaagaaac ctccagtctg tgcagtatgt
120

```

aaggtgacca tcgatgggac aggcgtttcg tgcagagtct gcaaggtggc gacgcacaga  
180  
aaatgtgaag caaaggtgac ttcagcctgt caggecttgc ctcccgtgga gttgcggcga  
240  
aacacggccc cagtcaggcg catagagcac ctgggatcca ccaaattctct gaaccactca  
300  
aagcagcgca gcaactctgc caggagcttc agcctggacc cgctcatgga gcggcgctgg  
360  
gacttagacc tcacctacgt gacggagcgc atcttggccg ccgccttccc cgcgcggccc  
420  
gatgaacagc ggcaccgggg ccacctgcgc gagctggccc atgtgctgca atccaagcac  
480  
cgggacaagt acctgctctt caacctttca gagaaaaggc atgacctgac ccgcttaaac  
540  
cccaaggttc aagacttcgg ctggcctgag ctgcatgctc cacccttga caagctgtgc  
600  
tccatctgca aagccatgga gacatggctc agtgctgacc cacagcacgt ggtcgtacta  
660  
tactgcaagg gaaacaaggg caagcttggg gtcctcgttt ctgcctacat gcactacagc  
720  
aagatctctg caggggcgga ccaggcactg gccactctta ccatgcgga attctgcgag  
780  
gacaaggtgg ccacagaact gcagccctcc cagcgtcgat atatcagcta cttcagtggg  
840  
ctgctatctg gctccatcag aatgaacagc agccctctct tcctgcacta tgtgtctatc  
900  
cccattctgc cagcctttga acctggcaca ggcttccagc ccttctttaa aatctaccag  
960  
tccatgcagc ttgtctacac atctggagtc tatcacattg caggccctgg tcccagcag  
1020  
ctttgcatca gcctggagcc agccctctct ctcaaaggcg atgtcatggt aacatgttat  
1080  
cacaaggtg gccggggcac agaccggacc ctctgttcc gagtccagtt ccacacctgc  
1140  
accatccagc gaccacagct cactttcccc aaggaccagc ttgacgaggc ctggactgat  
1200  
gagaggttcc ctttcaaagc ctccgtggag tttgtcttct cctccagccc cgagaagatc  
1260  
aaaggcagca ctccacgga cgacccctcg gtctctgtcg actacaacac cactgagcca  
1320  
gccgtgcgct gggactccta tgagaacttc aaccagcacc acgaggacag tgtggatggc  
1380  
tccttgacce acaccggggg tcccctggat ggcagtcctt atgccaggt gcagcggcct  
1440  
ccccggcaga cccccggc accctctcca gagcctccac cccccccat gctctctgtc  
1500  
agcagcgact caggccatc ctccacgtg accacagagc cggtgctga gtccctggc  
1560  
cggccgcccc ctacagctgc tgaacggcag gagctggatc gcctcctagg aggctgcgga  
1620  
gtggccagtg ggggcccggg agctgggcgc gagacggcca tcctagatga cgaagagcag  
1680  
cccactgtgg gcggaggccc ccacctcgga gtgtatccag gccataggcc tggcctcagc  
1740

cgccactgct cctgccgcca gggctaccgg gagccctgag gggttcccaa tgggggctac  
1800  
taccggccag agggaaacct ggagaggagg cgactggcct acgggggcta tgaggatcc  
1860  
ccccagggt acgccgaggc ctcgatggag aagaggcgcc tctgccgac gctgtcagag  
1920  
gggctatacc cctaccacc tgagatggg aaaccagcca ctggggactt tggctaccgc  
1980  
gccccaggct accgggaggt ggtcatcctg gaggaccctg ggctgcctgc cctatacca  
2040  
tgcccagcct gcgaggagaa gctggcgctg cctacagcag ccttgatgg actgcggctg  
2100  
gagaggagg ctggagaagg gtgggcaagt gaggtggca agcctctcct gcaccagtg  
2160  
cggcctgggc acccgctgcc tctgctcttg cctgccttg ggcatcacca tgccccgatg  
2220  
cctgactaca gctgcctgaa gccacccaag gcaggcgagg aagggcacga gggctgctcc  
2280  
tacacatgt gccccgaagg caggtatggg catccagggt accctgcct ggtgacatac  
2340  
agctatggag gagcagttcc cagttactgc ccagcatatg gccgtgtgcc tcatagctgt  
2400  
ggctctccag gagagggcag agggtatccc agcctgggtg cccactcccc acgggctggc  
2460  
tccatttccc cgggcagccc gccctatcca caatctagga agctgagcta cgagatccct  
2520  
acggaggagg gaggggacag gtaccattg cctgggcacc tggcctcagc aggaccttg  
2580  
gcactcgcag agtcgctgga gccggtgtcc tggaggagg gccccagtgg gcacagcaca  
2640  
ctgcctcggc tccccgaga tgcccctgc agtgcttcgt cagagttgtc tggteccctc  
2700  
acgccctgc acaccagcag tccagtccag ggcaaggaaa gcaccggcg acaggacacc  
2760  
aggccccca cctcagcgcc cactcagaga ctgagtcctg gcgaggcctt gccccctgtt  
2820  
tcccaggcag gcaccgaaa ggcccctgag ctgccgtcgg gaagtgggccc tgagcctctg  
2880  
gcccctagcc cagtctctcc gacctteect ccagctcgc ccagtgactg gcctcaggaa  
2940  
aggagtccag ggggccactc agatggcgcc agtcctcgga gccctgtgcc caccacactt  
3000  
cctggcctcc gccacgcccc ctggcaaggc cctcagggcc ccccgcacag cccagatggg  
3060  
tctccccca ctctgtgcc tcccagatg cctggcttg tggccagccc agagccgcct  
3120  
cagagctcac ctacacctgc tttccccctg gctgcctcct atgacaccaa tggccttagc  
3180  
cagccccac ttcctgagaa acgccacctg cccggggcgg ggcaacagcc aggacctgg  
3240  
ggcccagagc aggcacatc gccagccaga ggcatcagtc accatgtcac cttegcacct  
3300  
ctgctctcag ataatgtccc ccaaaccaca gagcctccta cacaagagag ccaaagcaat  
3360

gtcaagtttg tccaggatac atccaagttc tgggtacaagc cacacctgtc ccgtgaccaa  
3420  
gccattgccc tgctgaagga caaggacctt ggggccttcc tgatcagga cagtcattca  
3480  
ttccaaggag cttatgggct ggccctcaag gtggccacac cgccaccag tggccagccc  
3540  
tgaaagggg accccgtgga acagctggc cgccatttcc tcatcgagac tgggccccaa  
3600  
ggggtgaaga tcaagggtg cccagtgag cctactttg gcagcctgtc cgccttggtc  
3660  
tccagcact ccatctcccc catctccctg cctgtgtcc tgcgcattcc cagcaaagat  
3720  
cctctggaag agaccccaga ggctccagt cccaccaaca tgagcacagc ggcagacctc  
3780  
ctgcgtcagg gtgctgcctg cagcgtgtc tacttgacct cagtggagac agagtactg  
3840  
acgggcccc aagctgtggc cggggccagc tctgcagctc tgagctgtag cccccgccc  
3900  
acaccagctg ttgtccactt caagggtgtc gccagggca ttacactgac ggacaaccaa  
3960  
aggaagctct tctttgcgg ccattatcca gtgaacagca tcaccttctc cagcactgac  
4020  
cctcaagacc ggagatggac caaccagac gggaccacct ccaagatctt tggtttcgtg  
4080  
gccaagaagc cggaagccc ctgggagaat gtgtgtcacc tctttgcaga gcttgacca  
4140  
gatcagcctg ctggcgccat tgtcaccttc atcaccaaag ttctactggg ccagagaaaa  
4200  
tgaaggaagg ccacaagctc agagcccaca tcaactgtc cccctccca gcacccaca  
4260  
gccctccat cccctggcct ggaccagga gaccaggag aaagcacct ccttaggaa  
4320  
tgaggagtgg gcatcaggcc tgggacactg ctctccttcc cggccccag cctgctaagt  
4380  
taagtggaca ggcccacaag atgaccttgc atgtgagcag atggcagaga tgggtgtgtg  
4440  
aggggtgagg aggcacagc agttgagccc cgaaggagat caggcagccc cacctgcagg  
4500  
agaacgtcag cctccaggg gattacaggg gatcagcccc tgccagtcc acccagctgc  
4560  
aggtgccagc acggcaggga tgggagagg gtggggagcg agtactgcc tctctgagc  
4620  
agagattcag agtaggatca catgaatagg ggaaaaaaga gagtctattt ttgtctaata  
4680  
ataaagaatt tctataaact ttagccgaaa ttggagtcaa cacttattca caggaaggtc  
4740  
aaagcctcat ctcccagggg acgtatctgt gctcaggcct gtagccaggc ccatggaaca  
4800  
tatgattccc atccctggcc caacattggc ccacatctcc ccatgagcaa gctgccttcg  
4860  
gctgccccca tccagcagtc ctgttcctag cccagtgagc tagaaaggct cctggttccg  
4920  
gccatactga taaatacga aactccatct ttatcggtg tataaacatc tctggtctgt  
4980

acatacattt catacatcgt aggggtgggaa gcgagggcca aaggaggaggc cagcagcaca  
5040  
acagctcacc cgctttccct acagccctac ccgctctgtg caaaccaagg ccaacagctc  
5100  
ctgctgcctc ttcctccctg gaaaagtcac tgttacgggg agggggccag ggggtgaagg  
5160  
attagaagga gatagagggc ttggtgggga ggacacatgt aagtgctaga atcaaact  
5220  
gaagcgaaac aggcaactgg cacaagcagc aagctgaggc atgggacggg gcaggaaaag  
5280  
gggaggaggagg ggccacgctg cccctctggg cttgctcagc taaggctctg gggctctgcc  
5340  
ctcacgctgg cagggagaca ggccccagag cctcagcccc aatacccggg agctagggac  
5400  
atgggtggca ctggtaaaga aaggatggaa ggggagaaag gagtgaaggc ctagtgccc  
5460  
tgtcacctca cagccccctc ctcttaaaca tgcaacaggc acccaccat gtgggtccag  
5520  
gtatggggag ccagagacct agatcctctg tggtgctga gcaggttggg gtggggagcc  
5580  
agctctcaag ggaaagatgg agagcctaga ggagtcttc tggggcagca gccagtga  
5640  
ggacagagat gaccaaagag aggtccccg gcctgccag gggatatgaca gcagcaactg  
5700  
gttcacacaa ccaggaaaga aaacaagaaa gaggaattca aggagaaata ccatggtgag  
5760  
taggggaggg ggctgtctac tctaccctc acaaagcatc atgcccgaat agcagctgag  
5820  
atagggtgct cagcctctc caccacaca gggccggtga gggaaagggg gaccagaag  
5880  
cccactgacc aaagcgagtg ggaccacca cataccaaca ccattctttg ggtccattcc  
5940  
tgtccaacca gggactcagg cccagggact gacaacagtg gcagcaccag gtcagaaacg  
6000  
tgggcacaga gaagcgtgac aggggcctga gccagtgggg gcagagtgac tacacacctc  
6060  
caggggcctg ctgggtaaac gaagcctctg ggaagtcagg aactgggtgc ctggcccagc  
6120  
agagggtgag cagggagaag gaggaggtct ggaggggagg ccctagccac tcaaggggtg  
6180  
cagatctact ttgactttct cccgcagct cagcattcca atggtgggga agaagcctcc  
6240  
agaaggaaac acagcatcct tcttcccaat gatcttgcca ttccgagtga agaaaaccac  
6300  
caccttctg cctcatgct cggctctat ctcttccca tctcttctt ctctcttct  
6360  
ctctcttcc tcttccctt cctggtgcag gtacatgaca ttccgcacgt tccggacggc  
6420  
ccgggcagtc ggagacagga tctgtgtc acaactgtca tctgttccc cctcactgtc  
6480  
caaatgtag tcccggggga acatgattcc acagccatg atgtccctt tgtaacagcg  
6540  
tgggccaaag gggccccca caccactgcc atggaagatc ttcccatcgt ctgcatgata  
6600

agccacagac cctctgctcc agccaggggtg cctgttcttg ggatagtcct tccgtgccag  
 6660  
 ccccgaggcg atgtagcatt tctctccagg gtccacgac tccacctga agtagtggt  
 6720  
 gcgggtgctg agtgggtgcc gggcctgggc cagccccaca tccacgatgc ttttgccctt  
 6780  
 ccctaagtac tccagcagag tcccacagac tctgacatca tgtagccggc cccattcatc  
 6840  
 ctcgtagctg tccaccatca tga  
 6863

<210> 804

<211> 1400

<212> PRT

<213> Homo sapiens

<400> 804

Ala	Arg	Pro	Gly	Trp	Pro	Ser	Ala	His	Pro	Leu	Ser	Pro	Arg	Leu	Phe
1				5					10					15	
Pro	Arg	Lys	Ala	Glu	Pro	His	Ser	Phe	Arg	Glu	Lys	Val	Phe	Arg	Lys
			20					25					30		
Lys	Pro	Pro	Val	Cys	Ala	Val	Cys	Lys	Val	Thr	Ile	Asp	Gly	Thr	Gly
			35				40					45			
Val	Ser	Cys	Arg	Val	Cys	Lys	Val	Ala	Thr	His	Arg	Lys	Cys	Glu	Ala
	50				55				60						
Lys	Val	Thr	Ser	Ala	Cys	Gln	Ala	Leu	Pro	Pro	Val	Glu	Leu	Arg	Arg
65					70				75					80	
Asn	Thr	Ala	Pro	Val	Arg	Arg	Ile	Glu	His	Leu	Gly	Ser	Thr	Lys	Ser
				85				90					95		
Leu	Asn	His	Ser	Lys	Gln	Arg	Ser	Thr	Leu	Pro	Arg	Ser	Phe	Ser	Leu
			100					105					110		
Asp	Pro	Leu	Met	Glu	Arg	Arg	Trp	Asp	Leu	Asp	Leu	Thr	Tyr	Val	Thr
		115					120					125			
Glu	Arg	Ile	Leu	Ala	Ala	Ala	Phe	Pro	Ala	Arg	Pro	Asp	Glu	Gln	Arg
	130				135				140						
His	Arg	Gly	His	Leu	Arg	Glu	Leu	Ala	His	Val	Leu	Gln	Ser	Lys	His
145				150					155					160	
Arg	Asp	Lys	Tyr	Leu	Leu	Phe	Asn	Leu	Ser	Glu	Lys	Arg	His	Asp	Leu
			165					170					175		
Thr	Arg	Leu	Asn	Pro	Lys	Val	Gln	Asp	Phe	Gly	Trp	Pro	Glu	Leu	His
			180					185					190		
Ala	Pro	Pro	Leu	Asp	Lys	Leu	Cys	Ser	Ile	Cys	Lys	Ala	Met	Glu	Thr
	195					200						205			
Trp	Leu	Ser	Ala	Asp	Pro	Gln	His	Val	Val	Val	Leu	Tyr	Cys	Lys	Gly
	210					215					220				
Asn	Lys	Gly	Lys	Leu	Gly	Val	Ile	Val	Ser	Ala	Tyr	Met	His	Tyr	Ser
225				230					235					240	
Lys	Ile	Ser	Ala	Gly	Ala	Asp	Gln	Ala	Leu	Ala	Thr	Leu	Thr	Met	Arg
			245					250					255		
Lys	Phe	Cys	Glu	Asp	Lys	Val	Ala	Thr	Glu	Leu	Gln	Pro	Ser	Gln	Arg
		260						265					270		
Arg	Tyr	Ile	Ser	Tyr	Phe	Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Arg	Met
	275						280					285			
Asn	Ser	Ser	Pro	Leu	Phe	Leu	His	Tyr	Val	Leu	Ile	Pro	Met	Leu	Pro

290		295		300
Ala Phe Glu Pro Gly Thr	Gly Phe Gln Pro Phe Leu Lys Ile Tyr Gln			
305	310	315	320	
Ser Met Gln Leu Val Tyr Thr	Ser Gly Val Tyr His Ile Ala Gly Pro			
	325	330	335	
Gly Pro Gln Gln Leu Cys Ile	Ser Leu Glu Pro Ala Leu Leu Lys			
	340	345	350	
Gly Asp Val Met Val Thr Cys	Tyr His Lys Gly Gly Arg Gly Thr Asp			
	355	360	365	
Arg Thr Leu Val Phe Arg Val	Gln Phe His Thr Cys Thr Ile His Gly			
	370	375	380	
Pro Gln Leu Thr Phe Pro Lys	Asp Gln Leu Asp Glu Ala Trp Thr Asp			
385	390	395	400	
Glu Arg Phe Pro Phe Gln Ala	Ser Val Glu Phe Val Phe Ser Ser Ser			
	405	410	415	
Pro Glu Lys Ile Lys Gly Ser	Thr Pro Arg Asn Asp Pro Ser Val Ser			
	420	425	430	
Val Asp Tyr Asn Thr Thr Glu	Pro Ala Val Arg Trp Asp Ser Tyr Glu			
	435	440	445	
Asn Phe Asn Gln His His Glu	Asp Ser Val Asp Gly Ser Leu Thr His			
	450	455	460	
Thr Arg Gly Pro Leu Asp Gly	Ser Pro Tyr Ala Gln Val Gln Arg Pro			
465	470	475	480	
Pro Arg Gln Thr Pro Pro Ala	Pro Ser Pro Glu Pro Pro Pro Pro			
	485	490	495	
Met Leu Ser Val Ser Ser Asp	Ser Gly His Ser Ser Thr Leu Thr Thr			
	500	505	510	
Glu Pro Ala Ala Glu Ser Pro	Gly Arg Pro Pro Pro Thr Ala Ala Glu			
	515	520	525	
Arg Gln Glu Leu Asp Arg Leu	Leu Gly Gly Cys Gly Val Ala Ser Gly			
	530	535	540	
Gly Arg Gly Ala Gly Arg Glu	Thr Ala Ile Leu Asp Asp Glu Glu Gln			
545	550	555	560	
Pro Thr Val Gly Gly Gly Pro	His Leu Gly Val Tyr Pro Gly His Arg			
	565	570	575	
Pro Gly Leu Ser Arg His Cys	Ser Cys Arg Gln Gly Tyr Arg Glu Pro			
	580	585	590	
Cys Gly Val Pro Asn Gly Gly	Tyr Tyr Arg Pro Glu Gly Thr Leu Glu			
	595	600	605	
Arg Arg Arg Leu Ala Tyr Gly	Gly Tyr Glu Gly Ser Pro Gln Gly Tyr			
	610	615	620	
Ala Glu Ala Ser Met Glu Lys	Arg Arg Leu Cys Arg Ser Leu Ser Glu			
625	630	635	640	
Gly Leu Tyr Pro Tyr Pro Pro	Glu Met Gly Lys Pro Ala Thr Gly Asp			
	645	650	655	
Phe Gly Tyr Arg Ala Pro Gly	Tyr Arg Glu Val Val Ile Leu Glu Asp			
	660	665	670	
Pro Gly Leu Pro Ala Leu Tyr	Pro Cys Pro Ala Cys Glu Glu Lys Leu			
	675	680	685	
Ala Leu Pro Thr Ala Ala Leu	Tyr Gly Leu Arg Leu Glu Arg Glu Ala			
	690	695	700	
Gly Glu Gly Trp Ala Ser Glu	Ala Gly Lys Pro Leu Leu His Pro Val			
705	710	715	720	
Arg Pro Gly His Pro Leu Pro	Leu Leu Leu Pro Ala Cys Gly His His			



	725		730		735
His Ala Pro Met Pro Asp Tyr Ser Cys Leu Lys Pro Pro Lys Ala Gly					
	740		745		750
Glu Glu Gly His Glu Gly Cys Ser Tyr Thr Met Cys Pro Glu Gly Arg					
	755		760		765
Tyr Gly His Pro Gly Tyr Pro Ala Leu Val Thr Tyr Ser Tyr Gly Gly					
	770		775		780
Ala Val Pro Ser Tyr Cys Pro Ala Tyr Gly Arg Val Pro His Ser Cys					
785		790		795	800
Gly Ser Pro Gly Glu Gly Arg Gly Tyr Pro Ser Pro Gly Ala His Ser					
	805		810		815
Pro Arg Ala Gly Ser Ile Ser Pro Gly Ser Pro Pro Tyr Pro Gln Ser					
	820		825		830
Arg Lys Leu Ser Tyr Glu Ile Pro Thr Glu Glu Gly Gly Asp Arg Tyr					
	835		840		845
Pro Leu Pro Gly His Leu Ala Ser Ala Gly Pro Leu Ala Ser Ala Glu					
	850		855		860
Ser Leu Glu Pro Val Ser Trp Arg Glu Gly Pro Ser Gly His Ser Thr					
865		870		875	880
Leu Pro Arg Ser Pro Arg Asp Ala Pro Cys Ser Ala Ser Ser Glu Leu					
	885		890		895
Ser Gly Pro Ser Thr Pro Leu His Thr Ser Ser Pro Val Gln Gly Lys					
	900		905		910
Glu Ser Thr Arg Arg Gln Asp Thr Arg Ser Pro Thr Ser Ala Pro Thr					
	915		920		925
Gln Arg Leu Ser Pro Gly Glu Ala Leu Pro Pro Val Ser Gln Ala Gly					
	930		935		940
Thr Gly Lys Ala Pro Glu Leu Pro Ser Gly Ser Gly Pro Glu Pro Leu					
945		950		955	960
Ala Pro Ser Pro Val Ser Pro Thr Phe Pro Pro Ser Ser Pro Ser Asp					
	965		970		975
Trp Pro Gln Glu Arg Ser Pro Gly Gly His Ser Asp Gly Ala Ser Pro					
	980		985		990
Arg Ser Pro Val Pro Thr Thr Leu Pro Gly Leu Arg His Ala Pro Trp					
	995		1000		1005
Gln Gly Pro Arg Gly Pro Pro Asp Ser Pro Asp Gly Ser Pro Leu Thr					
	1010		1015		1020
Pro Val Pro Ser Gln Met Pro Trp Leu Val Ala Ser Pro Glu Pro Pro					
1025		1030		1035	1040
Gln Ser Ser Pro Thr Pro Ala Phe Pro Leu Ala Ala Ser Tyr Asp Thr					
	1045		1050		1055
Asn Gly Leu Ser Gln Pro Pro Leu Pro Glu Lys Arg His Leu Pro Gly					
	1060		1065		1070
Pro Gly Gln Gln Pro Gly Pro Trp Gly Pro Glu Gln Ala Ser Ser Pro					
	1075		1080		1085
Ala Arg Gly Ile Ser His His Val Thr Phe Ala Pro Leu Leu Ser Asp					
	1090		1095		1100
Asn Val Pro Gln Thr Pro Glu Pro Pro Thr Gln Glu Ser Gln Ser Asn					
1105		1110		1115	1120
Val Lys Phe Val Gln Asp Thr Ser Lys Phe Trp Tyr Lys Pro His Leu					
	1125		1130		1135
Ser Arg Asp Gln Ala Ile Ala Leu Leu Lys Asp Lys Asp Pro Gly Ala					
	1140		1145		1150
Phe Leu Ile Arg Asp Ser His Ser Phe Gln Gly Ala Tyr Gly Leu Ala					

1155	1160	1165
Leu Lys Val Ala Thr Pro Pro Pro Ser Ala Gln Pro Trp Lys Gly Asp		
1170	1175	1180
Pro Val Glu Gln Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Lys		
1185	1190	1195
Gly Val Lys Ile Lys Gly Cys Pro Ser Glu Pro Tyr Phe Gly Ser Leu		1200
1205	1210	1215
Ser Ala Leu Val Ser Gln His Ser Ile Ser Pro Ile Ser Leu Pro Cys		
1220	1225	1230
Cys Leu Arg Ile Pro Ser Lys Asp Pro Leu Glu Glu Thr Pro Glu Ala		
1235	1240	1245
Pro Val Pro Thr Asn Met Ser Thr Ala Ala Asp Leu Leu Arg Gln Gly		
1250	1255	1260
Ala Ala Cys Ser Val Leu Tyr Leu Thr Ser Val Glu Thr Glu Ser Leu		
1265	1270	1275
Thr Gly Pro Gln Ala Val Ala Arg Ala Ser Ser Ala Ala Leu Ser Cys		1280
1285	1290	1295
Ser Pro Arg Pro Thr Pro Ala Val Val His Phe Lys Val Ser Ala Gln		
1300	1305	1310
Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His		
1315	1320	1325
Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr Asp Pro Gln Asp Arg		
1330	1335	1340
Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys Ile Phe Gly Phe Val		
1345	1350	1355
Ala Lys Lys Pro Gly Ser Pro Trp Glu Asn Val Cys His Leu Phe Ala		1360
1365	1370	1375
Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile Val Thr Phe Ile Thr		
1380	1385	1390
Lys Val Leu Leu Gly Gln Arg Lys		
1395	1400	

&lt;210&gt; 805

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 805

cccagagag gttcaatcc aatgagctgc cagctgaact tactcaacaa gcaaggaccc  
60atgggcagac ccaggaaatc tcgccaagta cccattcat gggaggccag cagcacaatt  
120agtcattcat ttacttatca agctgttact gtgtgtgcaa gaagcgccag agagatgata  
180tcaaggagct cttaccatgg ctggcataga gcggctgatg agtaagttcc gtctgcacaa  
240agatcccta agcattcatt cttggctgac attcttggtc cagggggtct ccatggcett  
300gttccctcc tcgggtcacc agttcaggtc gagggggcct atgcttgga gggccacacc  
360aatggacctt gccaggacac tcagtcacag gtttcacacc caaagagaag acagcccaac  
420ccagaccctc aaaagagagc acctggggga agggagcgtg gaaaccagga ctcagaaaga  
480

cacaagagaa aaagaagctg tacactgggg aggcttccgg ggtacctgtg cctgccatgt  
 540  
 ctctgaaggc  
 550

<210> 806  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 806  
 Met Ala Gly Ile Glu Arg Leu Met Ser Lys Phe Arg Leu His Lys Glu  
 1 5 10 15  
 Ser Leu Ser Ile His Ser Trp Leu Thr Phe Leu Ala Gln Gly Val Ser  
 20 25 30  
 Met Ala Leu Phe Pro Ser Ser Gly His Gln Phe Arg Ser Arg Gly Pro  
 35 40 45  
 Met Leu Gly Arg Ala Thr Pro Met Asp Leu Ala Arg Thr Leu Ser His  
 50 55 60  
 Arg Phe His Thr Gln Arg Glu Asp Ser Pro Thr Gln Thr Leu Lys Arg  
 65 70 75 80  
 Glu His Leu Gly Glu Gly Ser Val Glu Thr Arg Thr Gln Lys Asp Thr  
 85 90 95  
 Arg Glu Lys Glu Ala Val His Trp Gly Gly Phe Arg Gly Thr Cys Ala  
 100 105 110  
 Cys His Val Ser Glu Gly  
 115

<210> 807  
 <211> 287  
 <212> DNA  
 <213> Homo sapiens

<400> 807  
 acgcgtcgat ggcggttgcc ctgcctcact ggcaagacgc gaaatttctt gccatgattt  
 60  
 cccgaggtgg gagagcgcgcc ggcatggcga ccgtaaacgt atcgttgtcc gatgcgatga  
 120  
 ccgagtgggt cgaagctcag accgggacag gccgctatac cagcgcgagc gattatatct  
 180  
 gcgccctgat tcgccaggac caggagcgaa gcgacggcct caggcagctt caaacgttga  
 240  
 tcaccgaggg gttegacagc ggcatcagcg cctcgtcgct tgatgac  
 287

<210> 808  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 808  
 Met Ala Val Ala Leu Pro His Trp Gln Asp Ala Lys Phe Leu Ala Met  
 1 5 10 15  
 Ile Ser Arg Gly Gly Arg Ala Arg Gly Met Ala Thr Val Asn Val Ser

```

                20                25                30
Leu Ser Asp Ala Met Thr Glu Trp Val Glu Ala Gln Thr Gly Thr Gly
      35                40                45
Arg Tyr Thr Ser Ala Ser Asp Tyr Ile Cys Ala Leu Ile Arg Gln Asp
      50                55                60
Gln Glu Arg Ser Asp Gly Leu Arg Gln Leu Gln Thr Leu Ile Thr Glu
      65                70                75                80
Gly Phe Asp Ser Gly Ile Ser Ala Ser Ser Leu Asp Asp
                85                90

```

&lt;210&gt; 809

&lt;211&gt; 405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 809

```

nngggggggg gggggggggg gggttttttc ccccaaaga aaaaaaagg gggggggggg
60
gggccccccc ccccccccc ctttttttc cccggggggg tttattcca ggccaacag
120
gacgcgtggt cgcgtcaaat ggagagacga tcggtgccgc ccttgcccca cgatcctgat
180
ggccccgaga ttcctgacga tgtcaccacc ctgcaccaac aggtaatggg tctgccacgt
240
cacctgggta tccactcagc tggaatgggtg ctgacgcgag aaccagtagg acgcatctgc
300
cccattgagc cggctcgaat gtttggtcgc acggggctgc agtgggacaa anaaaactgt
360
gcctggatgg gggtggggaa gtttgatctg cttgggttgg ggatg
405

```

&lt;210&gt; 810

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 810

```

Xaa Gly Gly Gly Gly Gly Gly Val Phe Phe Pro Pro Lys Lys Lys Lys
  1                5                10                15
Gly Gly Gly Gly Gly Gly Pro Pro Pro Pro Pro Pro Leu Phe Phe Pro Arg
      20                25                30
Gly Val Tyr Ser Gln Gly Gln Gln Asp Ala Trp Ser Arg Gln Met Glu
      35                40                45
Arg Arg Ser Val Pro Pro Leu Pro His Asp Pro Asp Gly Pro Glu Ile
      50                55                60
Pro Asp Asp Val Thr Thr Leu Ala Gln Gln Val Met Gly Leu Pro Arg
      65                70                75                80
His Leu Gly Ile His Ser Ala Gly Met Val Leu Thr Arg Glu Pro Val
      85                90                95
Gly Arg Ile Cys Pro Ile Glu Pro Ala Arg Met Phe Gly Arg Thr Gly
      100                105                110
Leu Gln Trp Asp Lys Xaa Asn Cys Ala Trp Met Gly Leu Gly Lys Phe
      115                120                125
Asp Leu Leu Gly Leu Gly Met

```

130

135

<210> 811  
 <211> 642  
 <212> DNA  
 <213> Homo sapiens

<400> 811  
 acgcgtgaag gggcagtgat aggcgcgcac catttgagcc cccagtggtga tgaatgtaag  
 60  
 cagtgccaat gactgccaat ggcaaagaag agctccaacc aaacaccagg tgcttcatgg  
 120  
 tgggtgacaca ttaacaacac ccggaagca gtactgccaac cacctagata tgagaaaaag  
 180  
 aaaacaggca cttaaagcga ggctaaccac ctttcaggaa tgataaaggg cagaggaccc  
 240  
 tgtcacctct acccctgcta ctaaaggcgt ggcccacaga gcagcagcac cagcagcaca  
 300  
 taaaatgggg ttaaatatga caggaaaaac aagggtgacag ggaaatgggg tgaagatcaa  
 360  
 gttcgtggta ngcttttctt tcctagaggc ttggggcctg agctcttggg gaaagctctc  
 420  
 caacacctca ggggtgtgct gttccctgc cctgtgggga tgctctttgt acgggtggct  
 480  
 gactggctcc cactttcttc cgtattgttg tcttgtctct tccctcaca ccatcaaggc  
 540  
 tctttccctt aattctataa gacagtacct ctggcttaga aattatatgc cctcctttaa  
 600  
 aaaaacgaaa tgctagagga catagaactt gaggaataat tt  
 642

<210> 812  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 812  
 Met Val Val Arg Glu Glu Thr Arg Gln Gln Tyr Gly Gly Lys Trp Glu  
 1 5 10 15  
 Pro Val Ser His Pro Tyr Lys Glu His Pro His Arg Ala Gly Glu Gln  
 20 25 30  
 Ala His Pro Glu Val Leu Glu Ser Phe Leu Gln Glu Leu Arg Pro Lys  
 35 40 45  
 Ala Ser Arg Lys Glu Arg Xaa Thr Thr Asn Leu Ile Phe Thr Pro Phe  
 50 55 60  
 Pro Cys His Leu Val Phe Pro Val Ile Phe Asn Pro Ile Leu Cys Ala  
 65 70 75 80  
 Ala Gly Ala Ala Ala Leu Trp Ala Thr Pro Leu Val Ala Gly Val Glu  
 85 90 95  
 Val Thr Gly Ser Ser Ala Leu Tyr His Ser  
 100 105

<210> 813  
 <211> 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 813

```

ccccggcgat agtcgctggt ggtcatggcg gatgaggggt taagagcgcg ttactgctg
60
cgccccgactc cgatcagccg ttccgaaagg cgacgccgaa gatcatgaca ttctcgcccg
120
gttcgctgac cagcaccggg ccgcccggct gggccgggaa accgtggaac aagggaagcg
180
ggggcgccgc gcggggtgac gccttcggcc ccctcgctt cggtcagcgt gcggcgcaat
240
tcgggggtcga ggatgatccg cggcccttcg atcttgacca cgatctccag ttgcccgcga
300
ttgtcttcgc cgccgacatc cagcgtgccg ccgcgcacca gcgcctcgct ggcgatcagg
360
gcgaggttca gcatcacctt cagcgcggac ttgggcagcg tctccgtttc caccaccag
420
ttgaattgcy tgcgcttatt gtcggcaacc agcccctcgt tcgcggtttt cgcttcgcgc
480
gcgtcgacct gttcgccgaa cccgccggcg gcgcagaagg cgaggcgga gaatttgagc
540
ttgttgccgg atacgcgt
558

```

&lt;210&gt; 814

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 814

```

Met Thr Phe Ser Ala Gly Ser Leu Thr Ser Thr Gly Pro Pro Gly Trp
1      5      10      15
Ala Gly Lys Pro Trp Asn Lys Gly Ser Gly Gly Gly Ala Arg Gly Asp
20     25     30
Ala Phe Gly Pro Leu Ala Phe Gly Gln Arg Ala Ala Gln Phe Gly Val
35     40     45
Glu Asp Asp Pro Arg Pro Phe Asp Leu Asp His Asp Leu Gln Leu Pro
50     55     60
Ala Ile Val Phe Ala Ala Asp Ile Gln Arg Ala Ala Ala His Gln Arg
65     70     75     80
Leu Ala Gly Asp Gln Gly Glu Val Gln His His Leu Gln Arg Gly Leu
85     90     95
Gly Gln Arg Leu Arg Phe His Pro Pro Val Glu Leu Arg Ala Leu Ile
100    105    110
Val Gly Asn Gln Pro Leu Val Arg Gly Phe Arg Phe Ala Arg Val Asp
115    120    125
Leu Phe Ala Glu Pro Ala Gly Gly Ala Glu Gly Glu Ala Glu Glu Phe
130    135    140
Glu Leu Val Gly Gly Tyr Ala
145    150

```

&lt;210&gt; 815

&lt;211&gt; 315

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 815

acgcgttgag actgtcacia ggctaggcta acttcatata gctatgccat cagatctgcc  
60  
caaagtggac gatgagaaag ctcacgacgc gcctcacacg gatgggtcgg agcctggaca  
120  
agctagcgca ggagaaagcc gagacctcac gtccgaagcg gattcagcaa gtgcacaacc  
180  
ttctaccac gctgaggttt ccagtgaagt tactgctacg tccagtatag atgagcaggt  
240  
agacctcatt gctgcaccgt taagcgaaga gtccaatgtc agcaagctcg ggccgtcccc  
300  
tgaggccgat acatc  
315

&lt;210&gt; 816

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 816

Met Pro Ser Asp Leu Pro Lys Val Asp Asp Glu Lys Ala His Asp Ala  
1 5 10 15  
Pro His Thr Asp Gly Ser Glu Pro Gly Gln Ala Ser Ala Gly Glu Ser  
20 25 30  
Arg Asp Leu Thr Ser Glu Ala Asp Ser Ala Ser Ala Gln Pro Ser Thr  
35 40 45  
His Ala Glu Val Ser Ser Glu Val Thr Ala Thr Ser Ser Ile Asp Glu  
50 55 60  
Gln Val Asp Leu Ile Ala Ala Pro Leu Ser Glu Glu Ser Asn Val Ser  
65 70 75 80  
Lys Leu Gly Pro Ser Pro Glu Ala Asp Thr  
85 90

&lt;210&gt; 817

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 817

gaattcaaag agaaatatct gcctagacct tatgtgatta atctaattga cgaactgacc  
60  
ctgaaaggaa tcacacaata ttatgctttt gttgaagagg ggcagaaggt tcattgcctg  
120  
aatacacttt tctcaaagct tcaaattaat caatccatta tattctgcaa ctctgttaat  
180  
agtgttgagc tgctggctaa aaaaataact gaactcgggt attcatgctt ctacattcat  
240  
gctaagatgt tgcaagacca cagaaatcga gtattccatg attgtcgtaa tgggtgcttg  
300  
agaaaccttg tgtgcacaga t  
321

<210> 818  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 818  
 Glu Phe Lys Glu Lys Tyr Leu Pro Arg Pro Tyr Val Ile Asn Leu Met  
 1 5 10 15  
 Asp Glu Leu Thr Leu Lys Gly Ile Thr Gln Tyr Tyr Ala Phe Val Glu  
 20 25 30  
 Glu Gly Gln Lys Val His Cys Leu Asn Thr Leu Phe Ser Lys Leu Gln  
 35 40 45  
 Ile Asn Gln Ser Ile Ile Phe Cys Asn Ser Val Asn Ser Val Glu Leu  
 50 55 60  
 Leu Ala Lys Lys Ile Thr Glu Leu Gly Tyr Ser Cys Phe Tyr Ile His  
 65 70 75 80  
 Ala Lys Met Leu Gln Asp His Arg Asn Arg Val Phe His Asp Cys Arg  
 85 90 95  
 Asn Gly Ala Cys Arg Asn Leu Val Cys Thr Asp  
 100 105

<210> 819  
 <211> 3422  
 <212> DNA  
 <213> Homo sapiens

<400> 819  
 atgaacagta agaaactgtc ttctactgac tgtttcaaaa ccgaggcctt cacatccccg  
 60  
 gaggccttgc agcctggggg gactgccctg gcgcctaaga agaggagccg gaaaggccgg  
 120  
 gcagggggccc atggactctc caaaggcccg ctggagaagc ggccctatct tggcccggt  
 180  
 ctgccccctga ctccccgaga cagggccagt ggcacacaag gggccagtga ggacaactct  
 240  
 ggtggaggag gcaagaagcc aaagatggag gagctgggcc tggcctccca cccccggag  
 300  
 ggcaaggcct gccagcccca gacaaggcca cagaaacagc caggccacac caactacagc  
 360  
 agctattcca agcggaagcg cctcactcgg ggccgggcca agaaccaccac ctcttcaccc  
 420  
 tgtaaggggc gtgccaagcg acgacgacag cagcaggtgc tgcccctgga tcccgagag  
 480  
 cctgaaatcc gcctcaagta catttctct tgaagcggc tgaggtcaga cagccggacc  
 540  
 cccgccttct cacccttctg gcgggtggag aagcgagacg cgttcaccac catatgcact  
 600  
 gttgtcaact cccctggaga tgcgcccaag cccacagga agccttctc ctctgectcc  
 660  
 tcttctcat cctcgtctc gttctcttg gatgcagccg gggcctccct ggccacactc  
 720  
 cctggaggct ccactctgca gccggggccc tccttgccc tctctccac gatgcacttg  
 780



gggcctgtgg ttccaaggc cctgagtacc tcttgccctg tttgctgcct ctgccaaaac  
840  
ccggccaact tcaaggacct tggggacctc tgtgggacct actacctga aactgcctc  
900  
cccaaaaaga agccaaaact caaggagaag gtgcggccag aaggcacctg tgaggaggcc  
960  
tcgctgccgc ttgagagaac actcaaaggt cccgagtgtg cagctgccgc cactgccggg  
1020  
aagcccccca ggctgacgg cccagctgac ccggccaagc agggcccact gcgcaccagt  
1080  
gcccggggcc tgtcccggag gctgcagagc tgctactgct gtgatggccg ggaggatggg  
1140  
ggcgaggagg cagccccagc cgacaagggt cgcaaacatg agtgcageaa ggaggctccg  
1200  
gcagagcccc gcggggaggc ccaggagcac tgggtgcatg aggcctgtgc cgtgtggacc  
1260  
ggcggcgctc acctggtggc cgggaagctc tttgggctgc agggggccat gaagggtggc  
1320  
gtggacatga tgtgttccag ctgccaagaa gccggggcca ccatcgggtg ctgccacaaa  
1380  
ggatgcctcc acacctacca ctaccctgtg gccagcgatg caggttgcat attcatcgaa  
1440  
gagaactttt ctttgaaatg tcccaaact aagaggctgc cgtagtaatc caccccaacg  
1500  
gccggaggag ccgccggagc ccgcctgcc gcccgccgcc gaaggagagg agccgcctgc  
1560  
gcagcccccg ggcctttgag ctgctcccag cgctggtcca gagccgatcc ttgatccggg  
1620  
tcccggatcg tggatccggc cgcctagggc tcagacttgc ggccccgggt tgggaggaaa  
1680  
accggttccg gagccgcctg ctcccgaac cggacggcac agggcgttct tgcccacccc  
1740  
agggggccagg cttgcggagg gggagccgc ggagcggcca gactccccgg ggcgtcagc  
1800  
ctccggcgag ggtgggagac ggctttgtcc tggggacact ttccctctgg aatctcaaga  
1860  
cgacgtggca cacattccac gtgggtgctg ccgccacccc agtcggtcgt ggcgtgcagc  
1920  
tgggagccct gggttgggg gtgggggtcg aaacagtact ggaagaggcg gagggcggct  
1980  
cctagctccg tggactaggc gggggagaaa ggaagccttt ctgagagcgg gctaggccgg  
2040  
cactggagag gccggagcct ttggaacaaa ccgtgcggaa cgcgtccagg ggccttcccg  
2100  
cccagccttt gccagatctc tcgtgcggtt cgggcaaagc cggggtagac ctgggctatg  
2160  
ctcagttagg ggttgcggga tccccagtg tgggcgggac tgggacaccc tttggcctct  
2220  
gtttgtcccc ttccagtc tccaccccac ccctggagcc cagcctggga gcgcaaaacc  
2280  
caagaagcgg ccagaacgca cctccggctc cggcgagcgc gcgaccgttg tgcaccacca  
2340  
gggaccgccg cgcctactct gcacgggagc agggacagcg ctagatttcg tgtacaaaac  
2400

ctgtgtaccc ctctatatat atgttacata gaatgtatat atgttgggaa catgctcgct  
 2460  
 tctcccggtg gtgcgcgcgc tgcgtcgtgc gcccgaaca gagccccaac cgggcctttg  
 2520  
 ccgggtaagg ggctaccgag acgccacttg tccacgcagc caccaccggc ccggggccagt  
 2580  
 ccctgccagt ccgtccgcct gtccgtccgt gtccctcagct ctgtccacgc ttcgataggc  
 2640  
 ctgacgcagc cccagccca gggccgcct agcaacttcc tgtacatatg actgtaaaat  
 2700  
 ggtaaacgtg tgtattatat ctggcctcgt tatatagtgt atatatatgt atacatatac  
 2760  
 atatatataa tatatatgaa gactgtaaat gttaagacga ctagtgttct tattagtata  
 2820  
 ttgcttcaca ctgaagattg tgtgtatcga gctgtttcta aaagatgttt attttcctta  
 2880  
 agagtaaaaa acagtcattg cattcagaaa aaaaaaaaaa aagtcaataa agatacaacg  
 2940  
 attgttttgg aaaatctgca gcccggtggat tccgaccaga ttcagctggg agccggggcca  
 3000  
 ggcttttaggt tggggaatgg gaatgaaggg aggggctggg ggggggggca tgaatggagt  
 3060  
 caggggagtgc gcctttcaca gaacaggaaa cctccccgc ccctgtgcc cctctccagt  
 3120  
 gtggcggcag gtccggaggg agggagcttc tttgctgtga aatgaccagg ggccgggatg  
 3180  
 ggggaggtga gacgtgccag acttcttgca gggagacca agctgtagct cctgtcacac  
 3240  
 aacaggctct ggaagtcagt ccactctccc gtgccacca gggaccttgt gtccggaggg  
 3300  
 ggagggggaag cctttgccta ggtgctgggg gagggcccaa gcactctcac tagtcagcac  
 3360  
 atccatcagc tgaagacaca aaaccagat tataaataat ttcattttta attctctgta  
 3420  
 ca  
 3422

&lt;210&gt; 820

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 820

Met	Asn	Ser	Lys	Lys	Leu	Ser	Ser	Thr	Asp	Cys	Phe	Lys	Thr	Glu	Ala
1				5					10					15	
Phe	Thr	Ser	Pro	Glu	Ala	Leu	Gln	Pro	Gly	Gly	Thr	Ala	Leu	Ala	Pro
			20					25					30		
Lys	Lys	Arg	Ser	Arg	Lys	Gly	Arg	Ala	Gly	Ala	His	Gly	Leu	Ser	Lys
		35				40						45			
Gly	Pro	Leu	Glu	Lys	Arg	Pro	Tyr	Leu	Gly	Pro	Ala	Leu	Pro	Leu	Thr
	50				55					60					
Pro	Arg	Asp	Arg	Ala	Ser	Gly	Thr	Gln	Gly	Ala	Ser	Glu	Asp	Asn	Ser
65				70					75					80	
Gly	Gly	Gly	Gly	Lys	Lys	Pro	Lys	Met	Glu	Glu	Leu	Gly	Leu	Ala	Ser

<210> 821  
<211> 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 821

acgcgtcccg tcacctgagg tatggaccaa gtgagttgtg tgctcgacaa tgggttcgcc  
 60  
 gccatcatgg atgtgccggg tttcaactat cgcgcccatc gttacaccga agcctatcgg  
 120  
 cgtttgccgc aaaatgtggg gctagggttcg gaaacgacct cgacggtgag cagccgtggg  
 180  
 gtctacaagt ttctgttgt gctgaagtcc gatgccatct atcccgacca tcagtcgtca  
 240  
 ggctacgaca cagagtattg ttctgtgtcg aacacccccg atgtcgattt cgccttcgcc  
 300  
 gaagactatc cctggacgat ggggcagttt gtctggacgg gcttcgacta cctcgggtgaa  
 360  
 ccttcgcctt acgacaccga tgctggccc tctcagcct cctcttcgg cattgtcgac  
 420

&lt;210&gt; 822

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 822

Met	Asp	Gln	Val	Ser	Cys	Val	Leu	Asp	Asn	Gly	Phe	Ala	Ala	Ile	Met
1				5					10					15	
Asp	Val	Pro	Gly	Phe	Asn	Tyr	Arg	Ala	His	Arg	Tyr	Thr	Glu	Ala	Tyr
		20					25						30		
Arg	Arg	Leu	Pro	Gln	Asn	Val	Val	Leu	Gly	Ser	Glu	Thr	Thr	Ser	Thr
		35				40						45			
Val	Ser	Ser	Arg	Gly	Val	Tyr	Lys	Phe	Pro	Val	Val	Leu	Lys	Ser	Asp
	50					55					60				
Ala	Ile	Tyr	Pro	Asp	His	Gln	Ser	Ser	Gly	Tyr	Asp	Thr	Glu	Tyr	Cys
65					70				75					80	
Ser	Trp	Ser	Asn	Thr	Pro	Asp	Val	Asp	Phe	Ala	Leu	Ala	Glu	Asp	Tyr
			85					90						95	
Pro	Trp	Thr	Met	Gly	Gln	Phe	Val	Trp	Thr	Gly	Phe	Asp	Tyr	Leu	Gly
		100					105							110	
Glu	Pro	Ser	Pro	Tyr	Asp	Thr	Asp	Ala	Trp	Pro	Ser	His	Ala	Ser	Leu
		115					120						125		
Phe	Gly	Ile	Val	Asp											
		130													

&lt;210&gt; 823

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 823

tctagattct tgggcagccg agccccctctt gaattcctca gcctaccatc atgatcaaca  
 60  
 cctcccatgt tccgtccatg aatgaccgca ctgacagcac tggagagatt taatgggtca  
 120

ccaattgagg cagtgaaggc actcatggca ctacagagctg gaatggggct gatctgagtt  
 180  
 gtactgttga ctgcagtggg gatgacaacc tgcattcctt tgctggctgc atcgacaact  
 240  
 gctttgtaaa tggcatctac ggaagcatca cctggggccac ccacaacgag gccatccttc  
 300  
 acctgttgac caagagatgg gtcaatcctc gggtgcaact cacaaggtgt atcttgaaaa  
 360  
 ggtggaagtg tagtgtttgg attctcagga agtgctgtga gccagggctg agtgcttatt  
 420  
 cttttgttta ggagagctgc atcttcctgc attctcacct gaaagtcttg aaacagacaa  
 480  
 gccatggggg tattgttagc tgggcaagga attgtggact gtccttgga cgcctggaga  
 540  
 ttctgggtacc  
 550

<210> 824

<211> 161

<212> PRT

<213> Homo sapiens

<400> 824

Met	Ala	Cys	Leu	Phe	Gln	Asn	Phe	Gln	Val	Arg	Met	Gln	Glu	Asp	Ala
1			5					10					15		
Ala	Leu	Leu	Asn	Lys	Arg	Ile	Ser	Thr	Gln	Pro	Gly	Leu	Thr	Ala	Leu
		20					25					30			
Pro	Glu	Asn	Pro	Asn	Thr	Thr	Leu	Pro	Pro	Phe	Gln	Asp	Thr	Pro	Cys
		35				40					45				
Glu	Leu	Gln	Pro	Arg	Ile	Asp	Pro	Ser	Leu	Gly	Gln	Gln	Val	Lys	Asp
	50					55				60					
Gly	Leu	Val	Val	Gly	Gly	Pro	Gly	Asp	Ala	Ser	Val	Asp	Ala	Ile	Tyr
65				70				75					80		
Lys	Ala	Val	Val	Asp	Ala	Ala	Ser	Lys	Gly	Met	Gln	Val	Val	Ile	Thr
		85					90					95			
Thr	Ala	Val	Asn	Ser	Thr	Thr	Gln	Ile	Ser	Pro	Ile	Pro	Ala	Leu	Ser
		100					105					110			
Ala	Met	Ser	Ala	Phe	Thr	Ala	Ser	Ile	Gly	Asp	Pro	Leu	Asn	Leu	Ser
		115					120					125			
Ser	Ala	Val	Ser	Ala	Val	Ile	His	Gly	Arg	Asn	Met	Gly	Gly	Val	Asp
	130					135				140					
His	Asp	Gly	Arg	Leu	Arg	Asn	Ser	Arg	Gly	Ala	Arg	Leu	Pro	Lys	Asn
145				150					155					160	
Leu															

<210> 825

<211> 327

<212> DNA

<213> Homo sapiens

<400> 825

gcgtttgcga ccggccgtaa cccgcagaat gcggcggtgt gttgcactga gggatattttg  
 60

cagttgctgg atgagcgcgga gatgcgcggc gtgctcggcc acgagctgat gcacgtgtac  
 120  
 aaccgcgata tctcacctc ttcgggtggcg gcgggtatcg cctccatcat cggtagcatt  
 180  
 gcgcagattc tttcgtttgg cgcgatgttc ggtggatcca accgcgatgg tgaacgttcc  
 240  
 aacccctcgc ccatgttcgt ggttgctatg ctggctccca ttgctactca ggtcatccag  
 300  
 atggctatta gccgcacccg tgaattc  
 327

&lt;210&gt; 826

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 826

Ala	Phe	Ala	Thr	Gly	Arg	Asn	Pro	Gln	Asn	Ala	Ala	Val	Cys	Cys	Thr
1				5				10				15			
Glu	Gly	Ile	Leu	Gln	Leu	Leu	Asp	Glu	Arg	Glu	Met	Arg	Gly	Val	Leu
			20					25				30			
Gly	His	Glu	Leu	Met	His	Val	Tyr	Asn	Arg	Asp	Ile	Leu	Thr	Ser	Ser
			35				40					45			
Val	Ala	Ala	Gly	Ile	Ala	Ser	Ile	Ile	Gly	Thr	Ile	Ala	Gln	Ile	Leu
			50				55				60				
Ser	Phe	Gly	Ala	Met	Phe	Gly	Gly	Ser	Asn	Arg	Asp	Gly	Glu	Arg	Ser
65					70				75					80	
Asn	Pro	Leu	Ala	Met	Phe	Val	Val	Ala	Met	Leu	Ala	Pro	Ile	Ala	Thr
					85				90					95	
Gln	Val	Ile	Gln	Met	Ala	Ile	Ser	Arg	Thr	Arg	Glu	Phe			
			100					105							

&lt;210&gt; 827

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 827

nacgcgtacg tcaatatgca tcgtccagtc gttatcgcaa cgccgaaatc gatgctgcgc  
 60  
 aacaagatgg cgacctcgga tcccgaagag ttcaccaccg gtaggtggcg tctgttcta  
 120  
 cccgacccat cgatcaccga cccgacggcc gttacgagga ttatcttgtg ctctggcaag  
 180  
 gcgcgggtggg agctgggtcaa gcaacgtaag gccgccagtc ttgacggaca gctcgccatc  
 240  
 atcccgatgg agcgtctcta cccgctacca gtgcagcagc tggtgaggt ttttgcgcct  
 300  
 tacaccaacg tcacggatgt ccgctgggtc caagaagagc cagagaacca gggcgccctgg  
 360  
 tactacatgc tgacccacct gccccaggcc atgtcggaga agctgccagg attctttgat  
 420  
 gggtttagtcg gcacacccg cccaccgtcc tcagctccgt cgggtgggaca gcacagcgtc  
 480

cacatccgtg aagagcagga gttactcgag aaggetatag cctgagcgac ctga  
534

<210> 828

<211> 174

<212> PRT

<213> Homo sapiens

<400> 828

Xaa	Ala	Tyr	Val	Asn	Met	His	Arg	Pro	Val	Val	Ile	Ala	Thr	Pro	Lys
1				5				10						15	
Ser	Met	Leu	Arg	Asn	Lys	Met	Ala	Thr	Ser	Asp	Pro	Glu	Glu	Phe	Thr
		20						25				30			
Thr	Gly	Arg	Trp	Arg	Pro	Val	Leu	Pro	Asp	Pro	Ser	Ile	Thr	Asp	Pro
	35					40					45				
Thr	Ala	Val	Thr	Arg	Ile	Ile	Leu	Cys	Ser	Gly	Lys	Ala	Arg	Trp	Glu
50					55					60					
Leu	Val	Lys	Gln	Arg	Lys	Ala	Ala	Ser	Leu	Asp	Gly	Gln	Leu	Ala	Ile
65				70					75				80		
Ile	Pro	Met	Glu	Arg	Leu	Tyr	Pro	Leu	Pro	Val	Asp	Glu	Leu	Ala	Glu
			85					90				95			
Val	Phe	Ala	Pro	Tyr	Thr	Asn	Val	Thr	Asp	Val	Arg	Trp	Val	Gln	Glu
		100						105				110			
Glu	Pro	Glu	Asn	Gln	Gly	Ala	Trp	Tyr	Tyr	Met	Leu	Thr	His	Leu	Pro
	115					120					125				
Gln	Ala	Met	Ser	Glu	Lys	Leu	Pro	Gly	Phe	Phe	Asp	Gly	Leu	Val	Gly
130					135					140					
Ile	Thr	Arg	Pro	Pro	Ser	Ser	Ala	Pro	Ser	Val	Gly	Gln	His	Ser	Val
145				150					155					160	
His	Ile	Arg	Glu	Glu	Gln	Glu	Leu	Leu	Glu	Lys	Ala	Ile	Ala		
			165					170							

<210> 829

<211> 492

<212> DNA

<213> Homo sapiens

<400> 829

nagtggccgg gtggccggcg ggtgccagcc gccatggagg ccgtgccccg catgcccag  
60  
atctggctgg acctgaagga ggccggtgac tttcacttcc agccagctgt gaagaagttt  
120  
gtcctgaaga attatggaga gaaccagaa gcctacaatg aagaactgaa gaagctggag  
180  
ttgctcagac agaatgctgt ccgtgtccca cgagactttg agggctgtag tgtcctccgc  
240  
aagtacctcg gccagcttca ttacctgcag agtcgggtcc ccatgggctc gggccaggag  
300  
gccgctgtcc ctgtcacatg gacagagatc ttctcaggca agtctgtggc ccatgaggac  
360  
atcaagtacg agcaggcctg tattttctcc aacnttggag cgtgcactc catgctggg  
420  
gccatggaca agcgggtgtc tgaggagggc atgaaggtct cctgtaccca ttccagtg  
480

gcagccggcg cc  
492

<210> 830  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 830  
Xaa Trp Pro Gly Gly Arg Arg Val Pro Ala Ala Met Glu Ala Val Pro  
1 5 10 15  
Arg Met Pro Met Ile Trp Leu Asp Leu Lys Glu Ala Gly Asp Phe His  
20 25 30  
Phe Gln Pro Ala Val Lys Lys Phe Val Leu Lys Asn Tyr Gly Glu Asn  
35 40 45  
Pro Glu Ala Tyr Asn Glu Glu Leu Lys Lys Leu Glu Leu Leu Arg Gln  
50 55 60  
Asn Ala Val Arg Val Pro Arg Asp Phe Glu Gly Cys Ser Val Leu Arg  
65 70 75 80  
Lys Tyr Leu Gly Gln Leu His Tyr Leu Gln Ser Arg Val Pro Met Gly  
85 90 95  
Ser Gly Gln Glu Ala Ala Val Pro Val Thr Trp Thr Glu Ile Phe Ser  
100 105 110  
Gly Lys Ser Val Ala His Glu Asp Ile Lys Tyr Glu Gln Ala Cys Ile  
115 120 125  
Phe Ser Asn Xaa Gly Ala Leu His Ser Met Leu Gly Ala Met Asp Lys  
130 135 140  
Arg Val Ser Glu Glu Gly Met Lys Val Ser Cys Thr His Phe Gln Cys  
145 150 155 160  
Ala Ala Gly Ala

<210> 831  
<211> 303  
<212> DNA  
<213> Homo sapiens

<400> 831  
gcgttgctgc ggcgtggcga gaccatgacg gcggagaatc agcgtgccaa tgtgcgcac  
60  
gccgcaaacc acatcaagga ggttgcggtc gatcacgagg tcgttgtagc ccattggaat  
120  
ggccccagg taggtctgtt ggctctgcaa tcgacagcct acgaggaagt cggtatctat  
180  
ccgctggatg tcttgggcgc agagtcacag gccatgatcg gctacatgat cgagcaggaa  
240  
ctcggcaatg tgatgcctca ggatcagcag atcgtcacca tgatcacgat gacagtcgtc  
300  
gac  
303

<210> 832  
<211> 101  
<212> PRT



<213> Homo sapiens

<400> 832

```

Ala Leu Leu Arg Arg Gly Glu Thr Met Thr Ala Glu Asn Gln Arg Ala
 1             5             10             15
Asn Val Arg Ile Ala Ala Asn His Ile Lys Glu Val Ala Val Asp His
          20             25             30
Glu Val Val Val Ala His Gly Asn Gly Pro Gln Val Gly Leu Leu Ala
          35             40             45
Leu Gln Ser Thr Ala Tyr Glu Glu Val Gly Ile Tyr Pro Leu Asp Val
          50             55             60
Leu Gly Ala Glu Ser Gln Ala Met Ile Gly Tyr Met Ile Glu Gln Glu
65             70             75             80
Leu Gly Asn Val Met Pro Gln Asp Gln Gln Ile Val Thr Met Ile Thr
          85             90             95
Met Thr Val Val Asp
          100

```

<210> 833

<211> 466

<212> DNA

<213> Homo sapiens

<400> 833

```

nngatccgcg cgatcgacga ggcgggtgcg tgatgttgac agcgaaaatg cgcagccggc
60
catttgacga gggctgaaaa cgtcttctac cggctctgctg tgccgcctgg tgtcagcaaa
120
cgacgccatg atcgctccagt gggatcgat ttgttctgcg gcgctggggg attcagttgc
180
ggattccacc aggccgggtg gcatgttgcg gcggcggttg agcacgacgt gtcggcgctc
240
ctgacctatg tcatgaatct cgctcgcccc ggcgtaaga ttcacatga ccccgagcac
300
ccggagctgg gcccaagacc accgcgaacc aagaagaaga gcggcgggcg agtgccgttc
360
gatgcgcgcatg tcggaactgg gtggatcgcc agcgagcccc ccgacgatcc cggtgcgaa
420
catttctacg tgtacgacgt caagaacctc agcggcgagc ggatcc
466

```

<210> 834

<211> 142

<212> PRT

<213> Homo sapiens

<400> 834

```

Gln Arg Lys Cys Ala Ala Gly His Leu Thr Arg Ala Glu Asn Val Phe
 1             5             10             15
Tyr Arg Ser Ala Val Pro Pro Gly Val Ser Lys Arg Arg His Asp Arg
          20             25             30
Pro Val Gly Ile Asp Leu Phe Cys Gly Ala Gly Gly Phe Ser Cys Gly
          35             40             45
Phe His Gln Ala Gly Trp His Val Ala Ala Ala Val Glu His Asp Val

```

50                      55                      60  
 Ser Ala Ser Leu Thr Tyr Val Met Asn Leu Ala Arg Pro Gly Val Lys  
 65                      70                      75                      80  
 Ile His Ile Asp Pro Glu His Pro Glu Leu Gly Pro Arg Pro Pro Arg  
                     85                      90                      95  
 Thr Lys Lys Lys Ser Gly Gly Ala Val Pro Phe Asp Ala His Val Gly  
                     100                      105                      110  
 Thr Gly Trp Ile Ala Ser Glu Pro Ala Asp Asp Pro Gly Cys Glu His  
                     115                      120                      125  
 Phe Tyr Val Tyr Asp Val Lys Asn Leu Ser Gly Glu Arg Ile  
                     130                      135                      140

&lt;210&gt; 835

&lt;211&gt; 482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 835

acgcgtgaag ggattttgat caccagaac aaccacctgt ctttttagat caagaagcag  
 60  
 aagctcagag caaagaacat cacaccacgt ccctcagtga ttgaagcagt gattgagtca  
 120  
 cagaataaat ctggaactca ggtcttctga tctttgctcc agatgttaga gacaaaacta  
 180  
 aaagtaaaat accaagtga atcaaagcat cagcattgag ccagaacat gaaaaagaac  
 240  
 ttctctggccc acttgagaaa ctgttaaacc ggacatacct ttggggactt cttcccttct  
 300  
 ctggaataag attgatgttt ccatgctgtg aaagacgatg atgttccttc tcccagattc  
 360  
 ctgctgtctt caaaaggcct agcaaaaacc actgctgctg ggtgcagttg agaaagggaa  
 420  
 tgaagaacaa tcccatggcc atgcaggcac tcttccctc cacctctctg cctttcacgc  
 480  
 gt  
 482

&lt;210&gt; 836

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 836

Met Ala Met Gly Leu Phe Phe Ile Pro Phe Leu Asn Cys Thr Gln Gln  
 1                      5                      10                      15  
 Gln Trp Phe Leu Leu Gly Leu Leu Lys Thr Ala Gly Ile Trp Glu Lys  
                     20                      25                      30  
 Glu His His Arg Leu Ser Gln His Gly Asn Ile Asn Leu Ile Pro Glu  
                     35                      40                      45  
 Lys Gly Arg Ser Pro Gln Arg Tyr Val Arg Phe Asn Ser Phe Ser Ser  
                     50                      55                      60  
 Gly Pro Gly Ser Ser Phe Ser Cys Ser Gly Leu Asn Arg Asp Ala Leu  
 65                      70                      75                      80  
 Ile Ser Leu Gly Ile Leu Leu Leu Val Leu Ser Leu Thr Ser Gly Ala

85 90 95  
 Lys Ile Arg Arg Pro Glu Phe Gln Ile Tyr Ser Val Thr Gln Ser Leu  
 100 105 110  
 Leu Gln Ser Leu Arg Asp Val Val  
 115 120

<210> 837  
 <211> 509  
 <212> DNA  
 <213> Homo sapiens

<400> 837  
 acgcgtggac ccccgcttctg cccgcctttg cagtcacgc cctccctgaa gtcaccgctg  
 60  
 cagaaatacg caggcactga cctgggggta cagccaggca agggagagac gaggggctca  
 120  
 ctctgcacca gccaaaggcct gtgtcctggc atggctcccc caggaagcga ggatggcggt  
 180  
 gcctggcggt cgagcccctc ttatcctggg gaatgctggg gggcgcttct gaggcagacct  
 240  
 gcctgctgcc cctgctggct ggactgccc ctccccggg gaaagggttg gtggtcccc  
 300  
 caggggaact caaagcaggg gagcccctgg agggcccaag tccctggaat atcttggcgc  
 360  
 tcagatggcc cccctcgaac accctcacac gggggggccg cgcggtggga ggtgaccag  
 420  
 cagccactct tacttggcga agacttttct cccaatgca gcgcggttg tatcagcctg  
 480  
 agccttcagg ttggtgaggc tggggtacc  
 509

<210> 838  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 838  
 Met Ala Pro Pro Gly Ser Glu Asp Gly Gly Ala Trp Arg Ser Ser Pro  
 1 5 10 15  
 Ser Tyr Pro Gly Glu Cys Trp Gly Ala Phe Leu Ser Arg Pro Ala Cys  
 20 25 30  
 Cys Pro Cys Trp Leu Ala Leu Pro Leu Pro Arg Gly Lys Val Gly Trp  
 35 40 45  
 Ser Pro Gln Gly Asn Ser Lys Gln Gly Ser Pro Trp Arg Pro Gln Val  
 50 55 60  
 Pro Gly Ile Ser Trp Arg Ser Asp Gly Pro Pro Arg Thr Pro Ser His  
 65 70 75 80  
 Gly Gly Ala Ala Arg Trp Glu Val Thr Gln Gln Pro Leu Leu Leu Gly  
 85 90 95  
 Glu Asp Phe Ser Pro Asn Ala Ser Ala Gly Gly Ile Ser Leu Ser Leu  
 100 105 110  
 Gln Val Gly Glu Ala Gly Val  
 115

<210> 839  
 <211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 839  
 acgcgtctcg tggtcgtgcg gcacggcagg acggcgttca atgtggaggg tcggctccag  
 60  
 ggccgtctcg acatgccgtt ggatgaggtg gggcgccgtc aggcactcac agtgggtcaa  
 120  
 gtcacgccg agatggaacc tgacgcgatc atggcctctc cgctacaacg tgcgcgcgac  
 180  
 acagctcagg caatcgggtc ttgtgctgga ttgggcgtac agctggatga tcgactcatc  
 240  
 gagatcgatg tcggacgttg gtcgggacaa cgggctgcgg acctgcgtcg caacgatcct  
 300  
 gagtacgcag caagtgtggt cagccctatc gattaccggg tcggagn  
 347

<210> 840  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 840  
 Thr Arg Leu Val Phe Val Arg His Gly Arg Thr Ala Phe Asn Val Glu  
 1 5 10 15  
 Gly Arg Leu Gln Gly Arg Leu Asp Met Pro Leu Asp Glu Val Gly Arg  
 20 25 30  
 Arg Gln Ala Leu Thr Val Ala Gln Val Ile Ala Glu Met Glu Pro Asp  
 35 40 45  
 Ala Ile Met Ala Ser Pro Leu Gln Arg Ala Arg Asp Thr Ala Gln Ala  
 50 55 60  
 Ile Gly Ala Cys Ala Gly Leu Gly Val Gln Leu Asp Asp Arg Leu Ile  
 65 70 75 80  
 Glu Ile Asp Val Gly Arg Trp Ser Gly Gln Arg Ala Ala Asp Leu Arg  
 85 90 95  
 Arg Asn Asp Pro Glu Tyr Ala Ala Ser Val Val Ser Pro Ile Asp Tyr  
 100 105 110  
 Arg Val Gly  
 115

<210> 841  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 841  
 tccggaactc accccgacgc cgtcattatg gacgtcatga tgccgcgtct agatggcttg  
 60  
 gaagccaccc ggatgctgcg cagcaatggc aacgacgtcc cgatcctcgt cctcaccgcc  
 120  
 cgcgatgctg tcgacgatcg cgttgacggc ctcgacgctg gcgccgatga ctacatggtc  
 180

aagcccttcg cctcgcagca actcctcgtc cgcctacgcg cctcactcg tcgttcccgt  
 240  
 cccgagccag agcaaaacga ggccctgaa caactctcct tcgtgacct cacccttgat  
 300  
 ccaggcaccg gcgagatcac ccgcgggaac cgtcgcacga gtttgacgcg t  
 351

<210> 842

<211> 117

<212> PRT

<213> Homo sapiens

<400> 842

Ser	Gly	Thr	His	Pro	Asp	Ala	Val	Ile	Met	Asp	Val	Met	Met	Pro	Arg
1				5				10						15	
Leu	Asp	Gly	Leu	Glu	Ala	Thr	Arg	Met	Leu	Arg	Ser	Asn	Gly	Asn	Asp
			20					25					30		
Val	Pro	Ile	Leu	Val	Leu	Thr	Ala	Arg	Asp	Ala	Val	Asp	Asp	Arg	Val
			35				40					45			
Asp	Gly	Leu	Asp	Ala	Gly	Ala	Asp	Asp	Tyr	Met	Val	Lys	Pro	Phe	Ala
	50					55					60				
Leu	Asp	Glu	Leu	Leu	Ala	Arg	Leu	Arg	Ala	Leu	Thr	Arg	Arg	Ser	Arg
65					70					75				80	
Pro	Glu	Pro	Glu	Gln	Asn	Glu	Ala	Pro	Glu	Gln	Leu	Ser	Phe	Ala	Asp
				85					90					95	
Leu	Thr	Leu	Asp	Pro	Gly	Thr	Arg	Glu	Ile	Thr	Arg	Gly	Asn	Arg	Arg
			100					105					110		
Ile	Ser	Leu	Thr	Arg											
			115												

<210> 843

<211> 393

<212> DNA

<213> Homo sapiens

<400> 843

ctagcccagg ctctcgtcca cgaggggctg cgcgctgtgg cctctggggc aaaccgggtc  
 60  
 ggctcaagc gcggtatcga gaaggtgtc gacgccgttg tggaggagct ccgtctatc  
 120  
 tcgcgcgcca tcgacaccac ctgcgacatg gccagcgttg ccaccatctc cagccgtgac  
 180  
 gagaccatcg gcgcctcat cgtgaggcc ttcgacaagg ttggttaagga cggggttatc  
 240  
 accgtcgacg agtcgcagac cttcggcact gagcttgact tcaccgaggg catgcagttc  
 300  
 gacaagggtt acctgtcgcc ctacatggtc accgaccagg ttcgcatgga ggctgtgatc  
 360  
 gaggatcctt acatcctcat tcaactccgc aag  
 393

<210> 844

<211> 131

<212> PRT

<213> Homo sapiens

<400> 844

```

Leu Ala Gln Ala Leu Val His Glu Gly Leu Arg Ala Val Ala Ser Gly
 1           5           10           15
Ala Asn Pro Val Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Asp Ala
          20           25           30
Val Val Glu Glu Leu Arg Ser Ile Ser Arg Ala Ile Asp Thr Thr Ser
          35           40           45
Asp Met Ala Ser Val Ala Thr Ile Ser Ser Arg Asp Glu Thr Ile Gly
          50           55           60
Ala Leu Ile Ala Glu Ala Phe Asp Lys Val Gly Lys Asp Gly Val Ile
65           70           75           80
Thr Val Asp Glu Ser Gln Thr Phe Gly Thr Glu Leu Asp Phe Thr Glu
          85           90           95
Gly Met Gln Phe Asp Lys Gly Tyr Leu Ser Pro Tyr Met Val Thr Asp
          100          105          110
Gln Val Arg Met Glu Ala Val Ile Glu Asp Pro Tyr Ile Leu Ile His
          115          120          125
Ser Arg Lys
          130

```

<210> 845

<211> 505

<212> DNA

<213> Homo sapiens

<400> 845

```

gccacctgcc caaggctgga tgacgggcct agggcacatc taaggaacaa ggacaggaca
60
gaagcaaagc cacagctgct ggggcagggt gggggccggt atgtctggcc agcagcatca
120
cccttgcctc cgccggggct ccaggaccgg gagactcatc agccggaagc tcttggagga
180
ggcggtgcc gtgaagacag gcacccttgc tcttgagagg ggcacccaga gaaccaagac
240
tcagcagagg gaacacaggg ctacgccag gccccaggcc tgatatccag agtctaaatc
300
ccacctcagc ccagggggga gccttgagag gagctatgtc cctcatggac cccagtttcc
360
tctgcatacg ggctccgagc cctgcactgc ctccagggtg gttcccaagg tcttttccca
420
ttacctocta cgtgagcact cagtaaacca atacacatac acaagggtga cattaattcc
480
agccacagaa tcccaggcca cgcgt
505

```

<210> 846

<211> 130

<212> PRT

<213> Homo sapiens

<400> 846

```

Met Gly Lys Asp Leu Gly Asn Tyr Pro Gly Gly Ser Ala Gly Leu Gly

```

```

1           5           10           15
Ala Arg Met Gln Arg Lys Leu Gly Ser Met Arg Asp Ile Ala Pro Leu
           20           25           30
Lys Ala Pro Pro Trp Ala Glu Val Gly Phe Arg Leu Trp Ile Ser Gly
           35           40           45
Leu Gly Pro Gly Arg Ser Pro Val Phe Pro Leu Leu Ser Leu Gly Ser
           50           55           60
Leu Gly Ala Pro Leu Arg Ser Lys Gly Ala Cys Leu His Gly Ser Arg
65           70           75           80
Leu Leu Gln Glu Leu Pro Ala Asp Glu Ser Pro Gly Pro Gly Ala Pro
           85           90           95
Pro Gly Ala Gly Val Met Leu Leu Ala Arg His Thr Gly Pro His Pro
           100           105           110
Ala Pro Ala Ala Val Ala Leu Leu Leu Ser Cys Pro Cys Ser Leu Asp
           115           120           125
Val Pro
           130

```

<210> 847  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

```

<400> 847
aagcttttaa aggagcaaga aaacatgaaa gagctagtag tcaaccttct ccgcatgact
60
caaatcaaaa ttgatgaaaa ggaacaaaag tccaaggatt tcctgaaagc tcagcaaaaa
120
tacaccaaca ttgttaaaga aatgaaagca aaggatcttg aaatcaggat acacaagaag
180
aaaaaatgtg aaatttatcg gagactgaga gagcttgcta aactgtatga caccattcga
240
aatgaaagaa acaaatttgt taacttactc cacaaagctc atcagaaagt aaatgaaata
300
aaagaaaggc ataaaatgtc attaaatgaa cttgaaattc tgagaaatag tgccgttagt
360
caagaaagaa agctacaaaa ttccatgctg aaacacgcca acaatgttac catcagagag
420
agcatgcaaa acgatgtgcg caaaattt
448

```

<210> 848  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

```

<400> 848
Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu
1           5           10           15
Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys
           20           25           30
Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met
           35           40           45
Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys Lys Lys Cys Glu

```

50                      55                      60  
 Ile Tyr Arg Arg Leu Arg Glu Leu Ala Lys Leu Tyr Asp Thr Ile Arg  
 65                      70                      75                      80  
 Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys  
                     85                      90                      95  
 Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu  
                     100                      105                      110  
 Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser  
                     115                      120                      125  
 Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn  
                     130                      135                      140  
 Asp Val Arg Lys Ile  
 145

<210> 849  
 <211> 463  
 <212> DNA  
 <213> Homo sapiens

<400> 849  
 nnacgcgtga ttgttggggc caaggaatgc catgtggaga gtgcaggtga agtgataagt  
 60  
 cttttggaga tggggaatgc agccagacat acaggtacca ctcaaatgaa tgagcactcc  
 120  
 agcagatcac atgcaatttt tacaatcagc atttgtcaag ttcataaaaa tatggaggca  
 180  
 gctgaagatg gatcatggta ttccccctcg catattgtct caaagttcca ctttgtggat  
 240  
 ttggcaggat cagaaagagt aacccaaacg ggggaatactg gtgaacgggt caaagaatcc  
 300  
 attcaaatca atagtggatt gctggcttta ggaaatgtaa taagcgctct tggggaccca  
 360  
 cgcaggaaga gttcacatat tccatatagg gatgctaaaa ttacccggct tctgaaagat  
 420  
 tctctgggag gcagtgctaa gactgtcatg atcacatgtg tca  
 463

<210> 850  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 850  
 Xaa Arg Val Ile Val Gly Ala Lys Glu Cys His Val Glu Ser Ala Gly  
 1                      5                      10                      15  
 Glu Val Ile Ser Leu Leu Glu Met Gly Asn Ala Ala Arg His Thr Gly  
                     20                      25                      30  
 Thr Thr Gln Met Asn Glu His Ser Ser Arg Ser His Ala Ile Phe Thr  
                     35                      40                      45  
 Ile Ser Ile Cys Gln Val His Lys Asn Met Glu Ala Ala Glu Asp Gly  
                     50                      55                      60  
 Ser Trp Tyr Ser Pro Arg His Ile Val Ser Lys Phe His Phe Val Asp  
 65                      70                      75                      80  
 Leu Ala Gly Ser Glu Arg Val Thr Lys Thr Gly Asn Thr Gly Glu Arg



```

      85              90              95
Phe Lys Glu Ser Ile Gln Ile Asn Ser Gly Leu Leu Ala Leu Gly Asn
      100              105              110
Val Ile Ser Ala Leu Gly Asp Pro Arg Arg Lys Ser Ser His Ile Pro
      115              120              125
Tyr Arg Asp Ala Lys Ile Thr Arg Leu Leu Lys Asp Ser Leu Gly Gly
      130              135              140
Ser Ala Lys Thr Val Met Ile Thr Cys Val
145              150

```

<210> 851  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

```

<400> 851
aaatttcctg tttctgatcg acgaaataaa gtttagcggtg atgagtgagc tgcttatgca
60
gttcctccat tcgcttataa acagtgttat ttctcatttc gaaaactctc gatgcagaat
120
aaaggctaga gtctggggac caagtcceca gctccgttta cgcgacttcc ttgacctgtg
180
ttgttatgct gataagggtta ttcagcttga cgatttggtc gtggtcttcc aaccgttttg
240
cagctggctg acgatattcc tggtaggaac tacgatagaa gaccagcatc ggaagaactt
300
tgtagatgct gaacaaacac ccaccgatca cttcagcctc gaagtaaggg ttatactgtc
360
taaccacgcg gt
372

```

<210> 852  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

```

<400> 852
Met Ser Glu Leu Leu Met Gln Phe Leu His Ser Leu Ile Asn Ser Phe
 1              5              10              15
Ile Ser His Phe Glu Asn Ser Arg Cys Arg Ile Lys Ala Arg Val Trp
      20              25              30
Gly Pro Ser Pro Gln Leu Arg Leu Arg Asp Phe Leu Asp Leu Val Cys
      35              40              45
Tyr Ala Asp Lys Val Ile Gln Leu Asp Asp Leu Phe Val Val Phe Gln
      50              55              60
Pro Phe Cys Ser Trp Ser Thr Ile Phe Leu Val Gly Thr Thr Ile Glu
65              70              75              80
Asp Gln His Arg Lys Asn Phe Val Asp Ala Glu Gln Thr Pro Thr Asp
      85              90              95
His Phe Ser Leu Glu Val Arg Val Ile Leu Ser Asn Pro Arg
      100              105              110

```

<210> 853  
 <211> 423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 853

acgcgttcag aaacttatgg tgaaatggcc gaactagaaa acctagtcga cgaatattac  
 60  
 caagctatgg gcatggatgt gcgtcgagaa acctggctgc gcgagcagat actcaagaaa  
 120  
 gtccaagaaa cgcatttggt agaagagctt gcaggcatag aatcagggtga tgatggcgca  
 180  
 gtgggtgaag agagcgtatt agaaggcctc gatacctatt tatgtgagat aaaagaagca  
 240  
 cagattcgtc atggattgca tcgtcttggga gaattaccag aagacgataa attggccgat  
 300  
 accttggctg ccttattgcy tttaccccggt ggcagtgaca ttaccagcaa gggaattttg  
 360  
 catgccttaa tggcagatgt agagttagaa caagacgatt ttgacccaat gcaaagcacg  
 420  
 cgt  
 423

&lt;210&gt; 854

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 854

Thr	Arg	Ser	Glu	Thr	Tyr	Gly	Glu	Met	Ala	Glu	Leu	Glu	Asn	Leu	Val
1				5					10					15	
Asp	Glu	Tyr	Tyr	Gln	Ala	Met	Gly	Met	Asp	Val	Arg	Arg	Glu	Thr	Trp
			20				25						30		
Leu	Arg	Glu	Gln	Ile	Leu	Lys	Lys	Val	Gln	Glu	Thr	His	Leu	Leu	Glu
			35				40					45			
Glu	Leu	Ala	Gly	Ile	Glu	Ser	Gly	Asp	Asp	Gly	Ala	Val	Val	Glu	Glu
			50				55				60				
Ser	Val	Leu	Glu	Gly	Leu	Asp	Thr	Tyr	Leu	Cys	Glu	Ile	Lys	Glu	Ala
65					70					75				80	
Gln	Ile	Arg	His	Gly	Leu	His	Arg	Leu	Gly	Glu	Leu	Pro	Glu	Asp	Asp
			85					90						95	
Lys	Leu	Ala	Asp	Thr	Leu	Val	Ala	Leu	Leu	Arg	Leu	Pro	Arg	Gly	Ser
			100					105						110	
Asp	Ile	Thr	Ser	Lys	Gly	Ile	Leu	His	Ala	Leu	Met	Ala	Asp	Leu	Glu
			115				120					125			
Leu	Glu	Gln	Asp	Asp	Phe	Asp	Pro	Met	Gln	Ser	Thr	Arg			
			130				135					140			

&lt;210&gt; 855

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 855

acgcgtgaag ggggagctca aagtagatgg acctctgact agatggagct ctgagtaaga  
 60

tgaatgtctg tgcggatggt getcacagca agatagtgtc tggagcgatt ggcacttcga  
 120  
 acaagatgga gcatggagca gatggagctc tgagcaagat ggagcgtgga gtagatagag  
 180  
 cttggagcaa gaaggagctc caagcaagat ggagcttgca gcaggtgctt ctcagtgtaa  
 240  
 gatggagctc agagaagatg atgctcagag taagattgag ctcggtgatt ggcactccaa  
 300  
 acattgtctt gagcccattg gagnctctga gcagaaag  
 338

<210> 856

<211> 93

<212> PRT

<213> Homo sapiens

<400> 856

Met	Asn	Val	Cys	Ala	Asp	Val	Ala	His	Ser	Lys	Ile	Val	Leu	Gly	Ala
1				5					10					15	
Ile	Gly	Thr	Ser	Asn	Lys	Met	Glu	His	Gly	Ala	Asp	Gly	Ala	Leu	Ser
		20						25					30		
Lys	Met	Glu	Arg	Gly	Val	Asp	Arg	Ala	Trp	Ser	Lys	Lys	Glu	Leu	Gln
		35					40					45			
Ala	Arg	Trp	Ser	Leu	Gln	Gln	Val	Leu	Leu	Ser	Val	Arg	Trp	Ser	Ser
	50					55				60					
Glu	Lys	Met	Met	Leu	Arg	Val	Arg	Leu	Ser	Ser	Val	Ile	Gly	Thr	Pro
65					70					75				80	
Asn	Ile	Ala	Leu	Ser	Pro	Leu	Glu	Xaa	Leu	Ser	Arg	Lys			
				85						90					

<210> 857

<211> 435

<212> DNA

<213> Homo sapiens

<400> 857

ccggacagtg ggccaccagt gtttgccccc agcaatcatg tcagtgaagc ccaacctcgg  
 60  
 gagacacccc ggccctcat gctcctacc aagcctttcc tagcacctga gaccaccagc  
 120  
 cctgggtgaca ggggtggagac ccctgtgggg gagagagccc caaccctgt ctcagcaagc  
 180  
 tctgaggtct ccctgagag ccaagaggac tcagagaccc cagcagagga ggacagtggc  
 240  
 tctgagcagc ctccaacag cgtcctgcct gacaaactga aggtgagctg ggagaacccc  
 300  
 agccccagg aggccctgc tcagagagt gcagaaccgt cccaggcacc ctgttctgag  
 360  
 atttctgagg ctgccccag ggagggtggg aagcccccta cccccacc caagatctta  
 420  
 tcagagaaac tgaaa  
 435

<210> 858

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 858

```

Pro Asp Ser Gly Pro Pro Val Phe Ala Pro Ser Asn His Val Ser Glu
 1           5           10           15
Ala Gln Pro Arg Glu Thr Pro Arg Pro Leu Met Pro Pro Thr Lys Pro
 20           25           30
Phe Leu Ala Pro Glu Thr Thr Ser Pro Gly Asp Arg Val Glu Thr Pro
 35           40           45
Val Gly Glu Arg Ala Pro Thr Pro Val Ser Ala Ser Ser Glu Val Ser
 50           55           60
Pro Glu Ser Gln Glu Asp Ser Glu Thr Pro Ala Glu Glu Asp Ser Gly
 65           70           75           80
Ser Glu Gln Pro Pro Asn Ser Val Leu Pro Asp Lys Leu Lys Val Ser
 85           90           95
Trp Glu Asn Pro Ser Pro Gln Glu Ala Pro Ala Ala Glu Ser Ala Glu
 100          105          110
Pro Ser Gln Ala Pro Cys Ser Glu Thr Ser Glu Ala Ala Pro Arg Glu
 115          120          125
Gly Gly Lys Pro Pro Thr Pro Pro Pro Lys Ile Leu Ser Glu Lys Leu
 130          135          140
Lys
145

```

&lt;210&gt; 859

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 859

```

naccgctgggt gtggtaatcc ggtttctgggt ggcgacggct gccacccctc gtggcaagac
60
atgccgttgc gtgccgatat gccatacgaa gcttggccta gtgcgaaaag ctgctggaa
120
ccctcgaaga ggcagggtcg gcaggttacc gtggtcggtg tacgcacgtt ttgcacgatg
180
aaccctatc tgggagcaga tatgacgacg taccagtacc tcattgtcgg tggcgggatg
240
gccgctgatt ctgccgcccg cggatccgc gacatcgaca agaaagggtc gatcgccatc
300
ctcagcgtg acgtcgacgc cccgtatcct cgccagcgc tgagcaagaa gctgtggact
360
gacctgagt tcacctggga ccaggctgac cttgctactg tcgctgacac cggcgcgaa
420
ttgcggctcg gcactgaggt gtcacgatt gaccgtgacg gcaagaccgt cctgaccgt
480
tccggccagg tattcggcta ccagaagttg ctgctcgta ccggccttac cccgtcgcgc
540
attgacgacg acggcgatgc c
561

```

&lt;210&gt; 860

<211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 860  
 Xaa Ala Trp Cys Gly Asn Pro Val Ser Gly Gly Asp Gly Cys His Pro  
 1 5 10 15  
 Ser Trp Gln Asp Met Pro Leu Arg Ala Asp Met Pro Tyr Glu Ala Trp  
 20 25 30  
 Pro Ser Ala Lys Ser Ser Leu Glu Pro Ser Lys Arg Gln Gly Arg Gln  
 35 40 45  
 Val Thr Val Val Gly Val Arg Ile Val Ser Thr Met Asn Pro Ile Leu  
 50 55 60  
 Gly Ala Asp Met Thr Thr Tyr Gln Tyr Leu Ile Val Gly Gly Gly Met  
 65 70 75 80  
 Ala Ala Asp Ser Ala Ala Arg Gly Ile Arg Asp Ile Asp Lys Lys Gly  
 85 90 95  
 Ser Ile Ala Ile Leu Ser Ala Asp Val Asp Ala Pro Tyr Pro Arg Pro  
 100 105 110  
 Ala Leu Ser Lys Lys Leu Trp Thr Asp Pro Glu Phe Thr Trp Asp Gln  
 115 120 125  
 Val Asp Leu Ala Thr Val Ala Asp Thr Gly Ala Glu Leu Arg Leu Gly  
 130 135 140  
 Thr Glu Val Leu Ser Ile Asp Arg Asp Gly Lys Thr Val Leu Thr Ala  
 145 150 155 160  
 Ser Gly Gln Val Phe Gly Tyr Gln Lys Leu Leu Leu Val Thr Gly Leu  
 165 170 175  
 Thr Pro Ser Arg Ile Asp Asp Asp Gly Asp Ala  
 180 185

<210> 861  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 861  
 ccatgggttt ctatgctctg aggtttcattc tgtggggaac agtattgact tacttacaaa  
 60  
 gagataatgg tcatacccta tggtcactca ccatagctctg gcggtacatg gacttctcag  
 120  
 cccagtaag atctgtatcc acaggacact taaagtcacc ttacagaggg ctatccaggt  
 180  
 gcctgaggcc tattagaggc gtctcttttc agccatcagt gttagaggcc atctgcattg  
 240  
 gatcccagag cctgcctcgg gaatggcaga agctggctgg tgcttgccgt gggctttgcc  
 300  
 tgtttctactg ctttcaggga ggctgccac aggggagaaa ctgggggggg ga  
 352

<210> 862  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 862

Met Gly Phe Tyr Ala Leu Arg Phe His Leu Trp Gly Thr Val Leu Thr  
 1 5 10 15  
 Tyr Leu Gln Arg Asp Asn Gly His Thr Leu Trp Ser Leu Thr Ile Val  
 20 25 30  
 Trp Arg Tyr Met Asp Phe Ser Ala Pro Val Arg Ser Val Ser Thr Gly  
 35 40 45  
 His Leu Lys Ser Pro Tyr Arg Gly Leu Ser Gln Cys Leu Arg Pro Ile  
 50 55 60  
 Arg Gly Val Ser Phe Gln Pro Ser Val Leu Glu Ala Ile Cys Met Gly  
 65 70 75 80  
 Ser Gln Ser Leu Pro Arg Glu Trp Gln Lys Leu Ala Gly Ala Trp Arg  
 85 90 95  
 Gly Leu Cys Leu Phe His Cys Phe Gln Gly Gly Leu Pro Gln Gly Arg  
 100 105 110  
 Asn Trp Gly Gly  
 115

&lt;210&gt; 863

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 863

tccggatcga cccggacgaa ttccacggtc cagccattga cttccaaatg ctctttgaca  
 60  
 tacgccgtga catgttcaat gtccaactta cgcattgtcca cccgctcacc ggtctcattg  
 120  
 agtttgagct gcgagtagac gttgcggttag ttctcgttga ccgactgctc atacgagatg  
 180  
 tgcagaagca tcggtttgcg gccatcctcg gacggcattg gcttggttga catggccgct  
 240  
 tggcggaaca tggttcagggt aaagcccgac ttgaagttgt gcgacagggc agaaacacac  
 300  
 agcatttctg accggcgatg acccatn  
 327

&lt;210&gt; 864

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 864

Met Gly His Arg Arg Ser Glu Met Leu Cys Val Ser Ala Leu Ser His  
 1 5 10 15  
 Asn Phe Lys Ser Gly Phe Thr Leu Asn Met Phe Arg Gln Ala Ala Met  
 20 25 30  
 Tyr Asn Lys Pro Met Pro Ser Glu Asp Gly Arg Lys Pro Met Leu Leu  
 35 40 45  
 His Ile Ser Tyr Glu Gln Ser Val Asn Glu Asn Tyr Arg Asn Val Tyr  
 50 55 60  
 Ser Gln Leu Lys Leu Asn Glu Thr Gly Glu Arg Val Asp Met Arg Lys  
 65 70 75 80  
 Leu Asp Ile Glu His Val Thr Ala Tyr Val Lys Glu His Leu Glu Val

85 90 95  
 Asn Gly Trp Thr Val Glu Phe Val Arg Val Asp Pro  
 100 105

<210> 865  
 <211> 729  
 <212> DNA  
 <213> Homo sapiens

<400> 865  
 acgcgtcatc ctcatccaag aggccccagga ggagcaccac cctccgcata ttgcgcgtgc  
 60  
 agctctcggt ctggtctctg agcatgccca cggcgctctg cacacagctt ctcagcagcc  
 120  
 tgggtggtgc caggatcgac acatcactgc ctccgagttc agaggtttcc tttcccacct  
 180  
 tctcagaact ttctgtttcc atggcctcct ctgccacctc tgccacctcc cctgatgtgc  
 240  
 tggcctccgt ctccatcgcc tcctcatggc cgtcttccgc ccggtgttcc aagcccagct  
 300  
 caggcaagtc tccgggcgag aacagctggc tgatggtgac atgctgcagc ctggtcacat  
 360  
 cagaaaccat gaggggtggat ctccggaggt catcgatgtg gacagactgc cacagccctc  
 420  
 cgtggaagcc cacataggtt gttcctcttc ccaccggga cagttttgtg atgaaataga  
 480  
 cgaagatacg gtctcatctt tctcgtatct tgttgatttc atttataaca gaatacttag  
 540  
 ctgaggcaat gagctgggag ctacggatcc catcttcaaa atctgtctga aaaatgagga  
 600  
 ttttacatct ggctgtattc gttaaacagt ttcggacttc tttgaggaat gagtactcgg  
 660  
 tgtcaaaactg ctgcagccac aggagtgtgg gtttcggagc cctgcctgtg acctctgatt  
 720  
 ctaaaattt  
 729

<210> 866  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 866  
 Ala Cys Pro Arg Arg Ser Ala His Ser Phe Ser Ala Ala Trp Trp Cys  
 1 5 10 15  
 Pro Gly Ser Thr His His Cys Leu Arg Val Gln Arg Phe Pro Phe Pro  
 20 25 30  
 Pro Ser Gln Asn Phe Leu Phe Pro Trp Pro Pro Leu Pro Pro Leu Pro  
 35 40 45  
 Pro Pro Leu Met Cys Trp Pro Pro Ser Pro Ser Pro Pro His Gly Arg  
 50 55 60  
 Leu Pro Pro Gly Val Pro Ser Pro Ala Gln Ala Ser Leu Arg Ala Arg  
 65 70 75 80  
 Thr Ala Gly

<210> 867  
 <211> 640  
 <212> DNA  
 <213> Homo sapiens

<400> 867  
 nntccggaac atcaagatcc aggcgcagaa gaccgtcaga agctgcactg gccacctcct  
 60  
 tcaggtggac tctcgttggg ggccggcgtc gctggccccc tcgcaccggt tcccgtgtca  
 120  
 catgctccag ggccgagctc ttgtccacct ttacctcacc gaaagccttg tttttgcctc  
 180  
 ggtaaatccc ttcatagagg gctttgatcc aggatccctt ctctcccccgt gtgggtgcct  
 240  
 ggaatttgat gtcgctgacc ttgttccctg gggatgcgag caggataaag cgggtgttttc  
 300  
 gcttgaggag ggcacgaagg tcctggcact tctcatagct gccagctcc acagtctcca  
 360  
 cacacttctg atcatcctca ttctcataga ccagcagctg ggcttggcag aggagcagat  
 420  
 atcgggtcttt ccagaaaccc aggaggcccc cactgctctt ctgatccag ccagccttgc  
 480  
 ccaccatctg tgctccccga ggcttctcac cggttctctt cacacctctc tctccatgg  
 540  
 cgagtcggcc gaggtccgac cgctccgcca ctgcttcca gcgcgcgcg ggctctgcca  
 600  
 ccgctcttac gcccgccag gcggcgactc tccggttct  
 640

<210> 868  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 868  
 Gly Gly His Glu Gly Pro Gly Thr Ser His Ser Cys Pro Ala Pro Gln  
 1 5 10 15  
 Ser Pro His Thr Ser Asp His Pro His Ser His Arg Pro Ala Ala Gly  
 20 25 30  
 Pro Gly Arg Gly Ala Asp Ile Gly Leu Ser Arg Asn Pro Gly Gly Pro  
 35 40 45  
 His Cys Ser Ser  
 50

<210> 869  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<400> 869  
 ngggtgatgc tgctcgggc attgagcacc ttgtgtctca gcgcgctggt tatcgacaac  
 60



ttcctgtcgc cgctgaatat ggcgaggctg ggccctggcga ttctgacggt gggcatcgct  
 120  
 gcgtgcacca tgctgttctg cctggcgctg gggcatttcg acttgctggt gggctcggtg  
 180  
 atcgccctgtg ccggtgtggt cgcggggatt gtgattcgtg acaccgatag cgtggcactc  
 240  
 ggcgtgtccg ctgcgttggc catgggcctg gtagtggggc tgatcaacgg catcgtgac  
 300  
 gccaaagctgc gcatcaacgc g  
 321

&lt;210&gt; 870

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 870

Xaa	Val	Met	Leu	Leu	Ala	Ala	Leu	Ser	Ile	Phe	Val	Leu	Ser	Ala	Leu
1			5					10				15			
Phe	Ile	Asp	Asn	Phe	Leu	Ser	Pro	Leu	Asn	Met	Arg	Gly	Leu	Gly	Leu
		20					25					30			
Ala	Ile	Ser	Thr	Val	Gly	Ile	Ala	Ala	Cys	Thr	Met	Leu	Phe	Cys	Leu
		35				40						45			
Ala	Ser	Gly	His	Phe	Asp	Leu	Ser	Val	Gly	Ser	Val	Ile	Ala	Cys	Ala
	50				55				60						
Gly	Val	Val	Ala	Gly	Ile	Val	Ile	Arg	Asp	Thr	Asp	Ser	Val	Ala	Leu
65			70					75					80		
Gly	Val	Ser	Ala	Ala	Leu	Ala	Met	Gly	Leu	Val	Val	Gly	Leu	Ile	Asn
			85					90					95		
Gly	Ile	Val	Ile	Ala	Lys	Leu	Arg	Ile	Asn	Ala					
			100					105							

&lt;210&gt; 871

&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 871

agatcttcag agtctctgtc ttttaaatgg gggtaacagc agcaagtcct cagaggtgct  
 60  
 ctgagcctca aaacacatcc tggtttgtaa cgtccgcagc ctcagcaggg gctaggcaca  
 120  
 gaacaagcat tcaggacctg gaaggtacca ggcacacctg gtccctccctt ccagggcaca  
 180  
 aggcagcccc tctccattca agctctgccc cagcccagca aagagagggg tctcagcca  
 240  
 ctgccccac cactaccaca atcatactca cctctcctgg tccatacgtg acaaaggacc  
 300  
 tgccacggcc agggagacaa  
 320

&lt;210&gt; 872

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 872

```

Met Gly Val Thr Ala Ser Pro Gln Arg Cys Pro Glu Pro Gln Asn
 1           5           10           15
Thr Ser Trp Phe Val Thr Ser Ala Ala Ser Ala Gly Ala Arg His Arg
      20           25           30
Thr Ser Ile Gln Asp Leu Glu Gly Thr Ser Asp Thr Trp Ser Ser Leu
      35           40           45
Pro Arg His Lys Ala Ala Pro Leu His Ser Ser Ser Ala Pro Ala Gln
      50           55           60
Gln Arg Glu Gly Ser Ser Ala Thr Ala Pro Thr Thr Thr Thr Ile Ile
      65           70           75           80
Leu Thr Ser Pro Gly Pro Tyr Val Thr Lys Asp Leu Pro Arg Pro Gly
      85           90           95
Arg Gln

```

&lt;210&gt; 873

&lt;211&gt; 363

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 873

```

nttgtttagc atcgtttttt acgggtgtat cagcgcgttt agcagcgttt ttagcggatg
60
catcagcatg ttttgcgtca cgtttttacaa ctgtgctacc gtgttttagca tcatttttga
120
cggaggtatc aatacgttta gcatcgtttt taacagatgt atcaacacgg ggttcacccg
180
cttttagcaga atccccagct ctagtagcca ctttagatac ttcagatttt atatgagtcg
240
cagttgtttc agcgtgagcc atgctgaatg tagaaccaag ggccaatgta attgctaaag
300
acaaagataa tttatttagt ttcattgttcg gagagaagtg tgcgaattcg gcgatacagt
360
cag
363

```

&lt;210&gt; 874

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 874

```

Met Lys Leu Asn Lys Leu Ser Leu Ser Leu Ala Ile Thr Leu Ala Leu
 1           5           10           15
Gly Ser Thr Phe Ser Met Ala His Ala Glu Thr Thr Ala Thr His Ile
      20           25           30
Lys Ser Glu Val Ser Lys Val Ala Thr Arg Ala Gly Asp Ser Ala Lys
      35           40           45
Ala Asp Glu Pro Arg Val Asp Thr Ser Val Lys Asn Asp Ala Lys Arg
      50           55           60
Ile Asp Thr Ser Val Lys Asn Asp Ala Lys His Gly Ser Thr Val Val

```



caatccacct atgctaaacg tggtcagcaa gggtatctca cacgagaatt ctttggtttg  
 120  
 ttggccaata ccatgggaga tcaaatacctt ttagtacagg cgtacagaga aggcgaagcg  
 180  
 atcgccgcgt cgtgggtgtt ctttgatgat cattcactat atgggcgtta ttggggctgt  
 240  
 atggaagaag tggattgcct gcattttgaa gcttgttatt accaaggaat cgagttttgt  
 300  
 ctcgaaaaag ggttacagca tttcgatccg ggtacacaag gggaacacaa gattgcgcgc  
 360  
 ggctttgaac ctgttttttag ccacagcgtg cattacattg ctcacaaagg ttttcgtgaa  
 420  
 gcgattggga atttctgtga ggaagaagcg caagctgtgc gcgagtatca tcaagatacc  
 480  
 cacgcgt  
 487

<210> 878  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 878  
 Thr Arg Thr Leu Gly Asn Glu Leu Thr Thr Ala Glu Ile Asp Cys Leu  
 1 5 10 15  
 Tyr Leu Cys Tyr Gln Ser Thr Tyr Ala Lys Arg Gly Gln Gln Gly Tyr  
 20 25 30  
 Leu Thr Arg Glu Phe Phe Gly Leu Leu Ala Asn Thr Met Gly Asp Gln  
 35 40 45  
 Ile Leu Leu Val Gln Ala Tyr Arg Glu Gly Glu Ala Ile Ala Ala Ser  
 50 55 60  
 Trp Cys Phe Phe Asp Asp His Ser Leu Tyr Gly Arg Tyr Trp Gly Cys  
 65 70 75 80  
 Met Glu Glu Val Asp Cys Leu His Phe Glu Ala Cys Tyr Tyr Gln Gly  
 85 90 95  
 Ile Glu Phe Cys Leu Glu Lys Gly Leu Gln His Phe Asp Pro Gly Thr  
 100 105 110  
 Gln Gly Glu His Lys Ile Ala Arg Gly Phe Glu Pro Val Phe Ser His  
 115 120 125  
 Ser Val His Tyr Ile Ala His Gln Gly Phe Arg Glu Ala Ile Gly Asn  
 130 135 140  
 Phe Cys Glu Glu Glu Ala Gln Ala Val Arg Glu Tyr His Gln Asp Thr  
 145 150 155 160  
 His Ala

<210> 879  
 <211> 993  
 <212> DNA  
 <213> Homo sapiens

<400> 879  
 nncttagcat ttaagccaac gaggcagcta atgtcctctg aacagcaaag gaaattcagc  
 60

agccagtcca gtagggctct gacccctcct tctacagta ctgctaaaaa ttcattggga  
 120  
 tcaagatcca gtgaatcctt tgggaagtac acatgccag taatgagtga gcatggggac  
 180  
 gagcacaggc agctcctctc tcaccaatg caaggccctg gactccgtgc agctacctca  
 240  
 tccaaccact ctgtggaaga gcaactgaag aatactgaca cgcacctcat cgacctggta  
 300  
 accaatgaga ttatcaccca aggacctcca gtggactgga atgacattgc tggctctcgac  
 360  
 ctgggtgaagg ctgtcattaa agaggaggtt ttatggccag tgttgaggtc agacgcgttc  
 420  
 agtggactga cggccttacc tcggagcatc cttttatttg gacctcgggg gacaggcaaa  
 480  
 acattatttg gcagatgcat cgctagtcag ctgggggcca catttttcaa aattgccggt  
 540  
 tctggactag tcgccaaggg gttaggagaa gcagagaaaa ttatccatgc ctcttttctt  
 600  
 gtggccaggt gtcgccagcc ctcggtgatt tttgttagtg acattgacat gttctctctc  
 660  
 tctcaagtga atgaggaaca tagtcagtc agtcggatga gaaccgaatt tctgatgcaa  
 720  
 ctggacactg tactaacttc ggctgaggac caaatcgtag taatttgtgc caccagtaaa  
 780  
 ccagaagaaa tagatgaatc ccttcggagg tacttcatga aacgactttt aatcccactt  
 840  
 cctgacagca cagcgaggca ccagataata gtacaactgc tctcacagca caattactgt  
 900  
 ctcaatgaca aggagtttgc actgctcgtc cagcgcacag aaggcttttc tggactagat  
 960  
 gtggctcatt tgtgtcagga agcagtggtg ggc  
 993

&lt;210&gt; 880

&lt;211&gt; 331

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 880

Xaa	Leu	Ala	Phe	Lys	Pro	Thr	Arg	Gln	Leu	Met	Ser	Ser	Glu	Gln	Gln
1				5				10					15		
Arg	Lys	Phe	Ser	Ser	Gln	Ser	Ser	Arg	Ala	Leu	Thr	Pro	Pro	Ser	Tyr
			20					25					30		
Ser	Thr	Ala	Lys	Asn	Ser	Leu	Gly	Ser	Arg	Ser	Ser	Glu	Ser	Phe	Gly
			35				40					45			
Lys	Tyr	Thr	Ser	Pro	Val	Met	Ser	Glu	His	Gly	Asp	Glu	His	Arg	Gln
			50				55				60				
Leu	Leu	Ser	His	Pro	Met	Gln	Gly	Pro	Gly	Leu	Arg	Ala	Ala	Thr	Ser
65					70					75				80	
Ser	Asn	His	Ser	Val	Asp	Glu	Gln	Leu	Lys	Asn	Thr	Asp	Thr	His	Leu
				85				90						95	
Ile	Asp	Leu	Val	Thr	Asn	Glu	Ile	Ile	Thr	Gln	Gly	Pro	Pro	Val	Asp
			100				105						110		
Trp	Asn	Asp	Ile	Ala	Gly	Leu	Asp	Leu	Val	Lys	Ala	Val	Ile	Lys	Glu

115	120	125
Glu Val Leu Trp Pro Val Leu Arg Ser Asp Ala Phe Ser Gly Leu Thr		
130	135	140
Ala Leu Pro Arg Ser Ile Leu Leu Phe Gly Pro Arg Gly Thr Gly Lys		
145	150	155
Thr Leu Leu Gly Arg Cys Ile Ala Ser Gln Leu Gly Ala Thr Phe Phe		
165	170	175
Lys Ile Ala Gly Ser Gly Leu Val Ala Lys Gly Leu Gly Glu Ala Glu		
180	185	190
Lys Ile Ile His Ala Ser Phe Leu Val Ala Arg Cys Arg Gln Pro Ser		
195	200	205
Val Ile Phe Val Ser Asp Ile Asp Met Leu Leu Ser Ser Gln Val Asn		
210	215	220
Glu Glu His Ser Pro Val Ser Arg Met Arg Thr Glu Phe Leu Met Gln		
225	230	235
Leu Asp Thr Val Leu Thr Ser Ala Glu Asp Gln Ile Val Val Ile Cys		
245	250	255
Ala Thr Ser Lys Pro Glu Glu Ile Asp Glu Ser Leu Arg Arg Tyr Phe		
260	265	270
Met Lys Arg Leu Leu Ile Pro Leu Pro Asp Ser Thr Ala Arg His Gln		
275	280	285
Ile Ile Val Gln Leu Leu Ser Gln His Asn Tyr Cys Leu Asn Asp Lys		
290	295	300
Glu Phe Ala Leu Leu Val Gln Arg Thr Glu Gly Phe Ser Gly Leu Asp		
305	310	315
Val Ala His Leu Cys Gln Glu Ala Val Val Gly		
325	330	

&lt;210&gt; 881

&lt;211&gt; 313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 881

cgcgtagcg tcgacaatgc tccaggaacc ggtgtgtatg aggccgggga ttctaccggt

60

cgtgggtttgc agggcatgagc tgagcgcgcc cgtatccatg gcggcaccgc gcgctggggc

120

gactcgcagt attatgaagg cggtttcaac gtcacggtgg agattccaac atgagcggcc

180

aaaggatgaa catggacacg acgcgcccc aacacggtcg gggcttgccg acgatcagcc

240

ggctgggtgc gcaccggttt tgccatggtg ctggattcgc aggacgacat cacggtggcc

300

tggcaagccg acn

313

&lt;210&gt; 882

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 882

Arg Val Ser Val Asp Asn Ala Pro Gly Thr Gly Val Tyr Glu Ala Gly

```

      1           5           10           15
Asp Ser Thr Gly Arg Gly Leu Gln Gly Met Arg Glu Arg Ala Arg Ile
      20           25           30
His Gly Gly Thr Ala Arg Trp Gly Asp Ser Gln Tyr Tyr Glu Gly Gly
      35           40           45
Phe Asn Val Thr Val Glu Ile Pro Thr
      50           55

```

<210> 883  
 <211> 576  
 <212> DNA  
 <213> Homo sapiens

```

<400> 883
naattaagat ctgggggtccc agtgtcattg gtgaaggcct tgggattcga ggcagctgag
60
tcctcactga ccaaggcaag ccattgcttct gagtgttga ggccaccgaa atgaacaaat
120
ggaaaacact cccatctttt tcaagcctac cttttagcag aagaggcaga tacacaagcc
180
ctaaagatgt aacatcaggc tgagtggagg aaggctgaga agaaaaataa agcaggctca
240
ggaggagaga gtgatgtcag gatgcccttg tgcttactcc agcctccttg tgaaaacca
300
gctctcctgt ctcccagtga agacttggat ggcagccatc agggaaggct gggccccagc
360
tgaggagtat ggtgtgagct ctatagacca tccctctctg caatcaataa acacttgctt
420
gtgaaagagg cccaagccac catccgcatg gacaccagtg caagtggccc caccgcctg
480
gtcctcagtg actgtgccac cagccatggg agcctgcgca tccaactgct gcataagctc
540
tccttcttgg tgaacgcctt agctaagcag gtcattg
576

```

<210> 884  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 884
Met Pro Leu Cys Leu Leu Gln Pro Pro Cys Glu Asn Pro Ala Leu Leu
1           5           10           15
Ser Pro Ser Glu Asp Leu Asp Gly Ser His Gln Gly Arg Leu Gly Pro
      20           25           30
Ser Trp Glu Tyr Gly Cys Glu Leu Tyr Arg Pro Ser Leu Ser Ala Ile
      35           40           45
Asn Lys His Leu Pro Val Lys Glu Ala Gln Ala Thr Ile Arg Met Asp
      50           55           60
Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys Ala Thr
      65           70           75           80
Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser Phe Leu
      85           90           95
Val Asn Ala Leu Ala Lys Gln Val Met

```

100

105

<210> 885  
 <211> 370  
 <212> DNA  
 <213> Homo sapiens

<400> 885  
 actagtggcg ccctcaccg ggccgctgtc ccgctctcgg agtcggctgc gttggagtcc  
 60  
 ggtgaggcga tgctgacgaa cgacacaccg gtgacttggg atggcgggaa agtacggggc  
 120  
 aggcgggtgt cgcgcctcgg tgcgatcgag ttgtcgtcga ccccggtccg cccagatccg  
 180  
 gtacgggctc gccacgtggc gctggaagca gtgaggtctg ggggacttga cgtagcgagc  
 240  
 ctgacgaaga acggtgaatc ttgcgacgc cgtcttgccc tggcccatcg ggtgtttggt  
 300  
 gatccctggc ccgatgtcag cgatgaggct ctgctagcct gcgccgagga gtggcttgac  
 360  
 ctcgacgcgt  
 370

<210> 886  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 886  
 Thr Ser Gly Ala Leu Ile Arg Ala Ala Val Pro Leu Ser Glu Ser Ala  
 1 5 10 15  
 Ala Leu Glu Ser Gly Glu Ala Met Leu Thr Asn Asp Thr Pro Val Thr  
 20 25 30  
 Trp Asp Gly Gly Lys Val Arg Gly Arg Arg Val Ser Arg Leu Gly Ala  
 35 40 45  
 Ile Glu Leu Ser Ser Thr Pro Val Arg Pro Asp Pro Val Arg Ala Arg  
 50 55 60  
 His Val Ala Leu Glu Ala Val Arg Ser Gly Gly Leu Asp Val Ala Ser  
 65 70 75 80  
 Leu Thr Lys Asn Gly Glu Ser Leu Arg Arg Arg Leu Ala Leu Ala His  
 85 90 95  
 Arg Val Phe Gly Asp Pro Trp Pro Asp Val Ser Asp Glu Ala Leu Leu  
 100 105 110  
 Ala Cys Ala Glu Glu Trp Leu Asp Leu Asp Ala  
 115 120

<210> 887  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 887  
 cagggcggtg cgctcggctg cgtgctgccg atggctatgc tcggaggctt aaccgccatc  
 60



attatctccg gctgcctgaa ccagcttggt aaacgctatc cgcattcgac cggcgaaggc  
 120  
 caactgatgc caaacctgac taatgctgat accacggctt cccaaccggc gttctccggt  
 180  
 aaagcggagc tgaccaccat tgctccggc gcgttgctgg ccgtgctgct ttacatgggtg  
 240  
 ggtaggttgg ttcacaagtt gattggcctg cctgctccgg ttggcatgtt gtttgtggcg  
 300  
 gtgctgggtca aactgtgcaa cggcgttctt ccccgctgc tcgaaggctc gcaggtgggt  
 360  
 tacaaattct tccagacctc cgtcacctat ccgattctgt tcgccgttgg cgtggcgatt  
 420  
 acgccgtggc aggaactggt caacgcg  
 447

<210> 888

<211> 149

<212> PRT

<213> Homo sapiens

<400> 888

Gln	Gly	Val	Ala	Leu	Gly	Arg	Val	Leu	Pro	Met	Val	Met	Leu	Gly	Gly
1				5				10					15		
Leu	Thr	Ala	Ile	Ile	Ile	Ser	Gly	Cys	Leu	Asn	Gln	Leu	Gly	Lys	Arg
			20				25					30			
Tyr	Pro	His	Leu	Thr	Gly	Glu	Gly	Gln	Leu	Met	Pro	Asn	Arg	Ala	Asn
		35				40					45				
Ala	Asp	Thr	Thr	Ala	Ser	Gln	Pro	Ala	Phe	Ser	Gly	Lys	Ala	Asp	Val
	50				55				60						
Thr	Thr	Ile	Ala	Ser	Gly	Ala	Leu	Leu	Ala	Val	Leu	Leu	Tyr	Met	Val
65				70				75					80		
Gly	Arg	Leu	Val	His	Lys	Leu	Ile	Gly	Leu	Pro	Ala	Pro	Val	Gly	Met
			85				90						95		
Leu	Phe	Val	Ala	Val	Leu	Val	Lys	Leu	Cys	Asn	Gly	Ala	Ser	Pro	Arg
		100					105					110			
Leu	Leu	Glu	Gly	Ser	Gln	Val	Val	Tyr	Lys	Phe	Phe	Gln	Thr	Ser	Val
		115				120						125			
Thr	Tyr	Pro	Ile	Leu	Phe	Ala	Val	Gly	Val	Ala	Ile	Thr	Pro	Trp	Gln
	130					135					140				
Glu	Leu	Val	Asn	Ala											
145															

<210> 889

<211> 450

<212> DNA

<213> Homo sapiens

<400> 889

ggtaccaccc cacacctgac aagaggtggc cagggaggaa gggagggttc ttacctcccc  
 60  
 atctcccctc agtaaaattc aggatgccca gtgaagtttg aatgtcagat aaacaatttg  
 120  
 ttagtataag gatgtaccta gcattgaaat gatgccttgt aatttactaa atctgcaact  
 180

atgcagcctt atttcatggc gggcagtggc ggtgatccca ggtttcaggg gcggggaagg  
 240  
 gtgctgggga gatcctgagg tcaggaaccc gtacacctct gcttctgccc tctcttccct  
 300  
 gtgccggcca caaggcaatg actcctgtgt ggggtgcagag gcagaaatgg gtctggaagg  
 360  
 ggattcccag tgtctggcaa gttctggtaa attctgcatt ggaggttctc tctgtagtaa  
 420  
 ggggagttgg cctggccgcc cttcacgct  
 450

<210> 890  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 890  
 Met Met Pro Cys Asn Leu Leu Asn Leu Gln Leu Cys Ser Leu Ile Ser  
 1 5 10 15  
 Trp Arg Ala Val Ala Val Ile Pro Gly Phe Arg Gly Gly Glu Gly Cys  
 20 25 30  
 Trp Gly Asp Pro Glu Val Arg Asn Pro Tyr Thr Ser Ala Ser Ala Leu  
 35 40 45  
 Ser Ser Leu Cys Arg Pro Gln Gly Asn Asp Ser Cys Val Gly Ala Glu  
 50 55 60  
 Ala Glu Met Gly Leu Glu Gly Asp Ser Gln Cys Leu Ala Ser Ser Gly  
 65 70 75 80  
 Lys Phe Cys Ile Gly Gly Ser Leu Cys Ser Lys Gly Ser Trp Pro Gly  
 85 90 95  
 Arg Pro Ser Arg  
 100

<210> 891  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<400> 891  
 mncaccgtcc ccgtactgga tccgcgcgag gatttcgccg actgcatgca cattgacgta  
 60  
 ctggatccct tccacactga caacaccagt gagcacagt acctggccac agatggccag  
 120  
 actaacggcc cggctgatag cgggactggc acccactctg agcagggaaa ctccgacata  
 180  
 tctagccccg tcagctctag tgacgtgct aacaccaccg acagcactgc tggcaatacc  
 240  
 ggtgaaggta ctgccgcgaa tatgcttggg gatctggctc attcttcgac ggctaccac  
 300  
 ccctatgcaa gcaccggt  
 318

<210> 892  
 <211> 106  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 892

Xaa Thr Val Pro Val Leu Asp Pro Arg Glu Asp Phe Ala Asp Cys Met  
 1 5 10 15  
 His Ile Asp Val Leu Asp Pro Phe His Thr Asp Asn Thr Ser Glu His  
 20 25 30  
 Ser Asp Leu Ala Thr Asp Gly Gln Thr Asn Gly Pro Ala Asp Ser Gly  
 35 40 45  
 Thr Gly Thr His Ser Glu Gln Gly Asn Ser Asp Ile Ser Ser Pro Val  
 50 55 60  
 Ser Ser Ser Asp Ala Ala Asn Thr Thr Asp Ser Thr Ala Gly Asn Thr  
 65 70 75 80  
 Gly Glu Gly Thr Ala Ala Asn Met Pro Gly Asp Met Ala His Ser Ser  
 85 90 95  
 Thr Ala Thr His Pro Tyr Ala Ser Thr Gly  
 100 105

&lt;210&gt; 893

&lt;211&gt; 510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 893

nnggataccta tccctgaatc taagggtggt gacacatgtg tttgggatag caaggtagag  
 60  
 aagtcacaga aaaagcctgt ggaaaacagg atgaaggagg aaaaagcag catcagggaa  
 120  
 gcaatcagca aagccaagag tacagcaaata ataaagacag aacaggaagg tgaggcatct  
 180  
 gagaagagct tgcattctgag cccacagcat atcacacacc agactatgcc tataggacag  
 240  
 agaggcagtg agcaaggcaa acgtgtggag aacattaatg gaacctccta ccctagtcta  
 300  
 cagcagaaaa ccaatgctgt taagaaatta cataaatgtg atgaatgtgg gaaatccttc  
 360  
 aaatataatt cccgccttgt tcaacataaa attatgcaca ctggggaaaa gcgctatgaa  
 420  
 tgtgatgact gtggaggggac tttccggagc agctcgagcc ttcgggtcca caaacggatc  
 480  
 cacactgggt acggagagaa gacaacgcgt  
 510

&lt;210&gt; 894

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 894

Xaa Asp Pro Ile Pro Glu Ser Lys Val Gly Asp Thr Cys Val Trp Asp  
 1 5 10 15  
 Ser Lys Val Glu Lys Ser Gln Lys Lys Pro Val Glu Asn Arg Met Lys  
 20 25 30  
 Glu Asp Lys Ser Ser Ile Arg Glu Ala Ile Ser Lys Ala Lys Ser Thr

35	40	45
Ala Asn Ile Lys Thr Glu Gln Glu Gly Glu Ala Ser Glu Lys Ser Leu		
50	55	60
His Leu Ser Pro Gln His Ile Thr His Gln Thr Met Pro Ile Gly Gln		
65	70	75
Arg Gly Ser Glu Gln Gly Lys Arg Val Glu Asn Ile Asn Gly Thr Ser		
85	90	95
Tyr Pro Ser Leu Gln Gln Lys Thr Asn Ala Val Lys Lys Leu His Lys		
100	105	110
Cys Asp Glu Cys Gly Lys Ser Phe Lys Tyr Asn Ser Arg Leu Val Gln		
115	120	125
His Lys Ile Met His Thr Gly Glu Lys Arg Tyr Glu Cys Asp Asp Cys		
130	135	140
Gly Gly Thr Phe Arg Ser Ser Ser Ser Leu Arg Val His Lys Arg Ile		
145	150	155
His Thr Gly Tyr Gly Glu Lys Thr Thr Arg		160
165	170	

&lt;210&gt; 895

&lt;211&gt; 1119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 895

cgcccgacaga attgggtcgg gcatttccag atgttcccgt ggttgattcg tccggcaatc  
 60  
 acgttcggga gagggtcgat tcaactcccc gattaatcgt tgccacccca agggccgaac  
 120  
 ccgcaccgga atcgggcttt tcttggggct gccttcctaa atgcggtgtc ctccttgctg  
 180  
 aggcctggcc tggcggcggt ggagcagacc gtcgatcggg ggatggcaat cctggccttg  
 240  
 gtccgatcag tgccgggatgg gggccgggca gttatcgtcg ggccttcgga ggacgccgcc  
 300  
 ttgcaggcca tgggttcgaaa tgatccagtc ggggtgggca cacgtgaact cgccgatcgt  
 360  
 cgggaggcac atttcccgcc cgcggtgccg tcggaattg tcgacggtga cccgaaagcg  
 420  
 gtggctacag cggcacagcg actacgcgag tgggttcgaa ccgaccttga gatgcttggc  
 480  
 ccagctccac aaccacgccg tgccagcgaa tcggaacggg atcgaattat cgtgcgtcct  
 540  
 cgtagcacga tgctctcgc cgagctttcc cagggtctat ttcggctacg ttccaaacac  
 600  
 actatgagcc gcgaaccagg aagcttacgc gtgggtcatcg acccgccaa cttgttgtga  
 660  
 ggtcggtagg cttgcgggtg gagacttctt tttgctggta ccccgacgt ggcgctccca  
 720  
 acgcttaccg ccttggtagc cgatccccgt cagcaggtag ctgccgtcct gacgcgtccg  
 780  
 gatgcagcag taggacggca ccgtactcca cgtccatgcc cggtcgccaa ggctgccgag  
 840  
 gaactcggta tccccgccat taaggcgacc agcgtgaagt ccggcgaggg tcacgatgcc  
 900

gtcacttccc tcgatgtcga cgtagccgtc gtcgtagcct acggaggtct cattccccgc  
 960  
 gatctgctgg cagtaccacg acacggctgg attaacttac acttttctct cctaccgga  
 1020  
 tggcgcgcg ctgctcccat acaacgggcc atcatggcgg gggatgagga gacgggcgct  
 1080  
 tgtgtctttc agctagtga aagcctcgat gccggaccg  
 1119

<210> 896

<211> 147

<212> PRT

<213> Homo sapiens

<400> 896

Val	Arg	Leu	Leu	Phe	Ala	Gly	Thr	Pro	Asp	Val	Ala	Val	Pro	Thr	Leu
1				5					10					15	
Thr	Ala	Leu	Val	Ala	Asp	Pro	Arg	His	Glu	Val	Ala	Ala	Val	Leu	Thr
			20				25						30		
Arg	Pro	Asp	Ala	Ala	Val	Gly	Arg	His	Arg	Thr	Pro	Arg	Pro	Cys	Pro
		35					40					45			
Val	Ala	Lys	Ala	Ala	Glu	Glu	Leu	Gly	Ile	Pro	Ala	Ile	Lys	Ala	Thr
	50					55				60					
Ser	Val	Lys	Ser	Gly	Glu	Gly	His	Asp	Ala	Val	Thr	Ser	Leu	Asp	Val
65					70					75				80	
Asp	Val	Ala	Val	Val	Val	Ala	Tyr	Gly	Gly	Leu	Ile	Pro	Ala	Asp	Leu
			85						90					95	
Leu	Ala	Val	Pro	Arg	His	Gly	Trp	Ile	Asn	Leu	His	Phe	Ser	Leu	Leu
			100						105				110		
Pro	Arg	Trp	Arg	Gly	Ala	Ala	Pro	Ile	Gln	Arg	Ala	Ile	Met	Ala	Gly
		115				120						125			
Asp	Glu	Glu	Thr	Gly	Ala	Cys	Val	Phe	Gln	Leu	Val	Glu	Ser	Leu	Asp
	130					135					140				
Ala	Gly	Pro													

<210> 897

<211> 384

<212> DNA

<213> Homo sapiens

<400> 897

gagctcgagg ctggcaagcc ggaagtgccg ctgttcccga cgcccgcagg catgtcgctc  
 60  
 gacgactacc tcgtccagct gtccaaggaa gggctcgaga cccgtctcgc gcagctgtat  
 120  
 ccggtcgaag cccgacgcga cgcgcagcgc gacacctact acaagcgcct cgaattcgag  
 180  
 tgcgggacca tcacgaagat gggctttccc ggctacttcc tgatcgtcgc ggacttcac  
 240  
 aactgggcaa agaacaacgg cgtgccggtc ggcccgggcc gcggtcgagg cgccggttcg  
 300  
 ctggtcgctg atgcgctcgg cattaccgat ctccaagtac tgcgctacga cctgctgttc  
 360

gagcgcttcc tgaacccgga acgc  
384

<210> 898

<211> 128

<212> PRT

<213> Homo sapiens

<400> 898

Glu	Leu	Glu	Ala	Gly	Lys	Pro	Glu	Val	Pro	Leu	Phe	Pro	Thr	Pro	Asp
1				5					10					15	
Gly	Met	Ser	Leu	Asp	Asp	Tyr	Leu	Val	Gln	Leu	Ser	Lys	Glu	Gly	Leu
			20					25					30		
Glu	Thr	Arg	Leu	Ala	Gln	Leu	Tyr	Pro	Val	Glu	Ala	Arg	Arg	Asp	Ala
		35					40					45			
Gln	Arg	Asp	Thr	Tyr	Tyr	Lys	Arg	Leu	Glu	Phe	Glu	Cys	Gly	Thr	Ile
	50					55					60				
Thr	Lys	Met	Gly	Phe	Pro	Gly	Tyr	Phe	Leu	Ile	Val	Ala	Asp	Phe	Ile
65					70				75					80	
Asn	Trp	Ala	Lys	Asn	Asn	Gly	Val	Pro	Val	Gly	Pro	Gly	Arg	Gly	Ser
			85					90						95	
Gly	Ala	Gly	Ser	Leu	Val	Ala	Tyr	Ala	Leu	Gly	Ile	Thr	Asp	Leu	Glu
			100					105					110		
Val	Leu	Arg	Tyr	Asp	Leu	Leu	Phe	Glu	Arg	Phe	Leu	Asn	Pro	Glu	Arg
			115				120						125		

<210> 899

<211> 6171

<212> DNA

<213> Homo sapiens

<400> 899

ttctccaagg ccttaaactc cagatacttg aatgcatctg caaatagtct ggagtcttta  
60  
ccatccgcct gcaactggaga ggagagtttg agtatgctgc agctgcttta tctgaccaac  
120  
aatctcctga cggatcagtg catacctgtc ctggtagggc acctgcacct gcgaatcttg  
180  
caccttgcaa acaatcagtt acagaccttt cctgcaagca aactaaataa attggagcaa  
240  
ttggaggaac tgaacctaaag tggcaacaag cttaaaacca ttcccacaac catagcaaac  
300  
tgtaaaaggc tgcacaccct tgttgacacac tccaacaaca tcagcathtt ccagaaata  
360  
ctgcagttgc ctcagatcca gttttagtagac ctaagttgca acgacttgac agaaatcctg  
420  
attccagagg ctttgctgac tacattacaa gaccttgacc tgactggaaa tacaatctg  
480  
gttctggaac acaagacact ggacatattt agccatatca caaccctgaa aattgatcag  
540  
aaacctttgc caaccacaga ttctacagtt acgtcaacct tctggagcca tggactggct  
600  
gagatggcag ggcagagaaa taagctgtgt gtctcagcac ttgctatgga tagctttgca  
660

gagggggtgg gagctgtgta tggcatgttt gatggagacc gaaatgagga gctccccgcg  
720  
ctgctgcagt gtacgatggc agatgtgctt ttagaagagg tacagcagtc aactaatgac  
780  
acagttttca tggctaacac cttcttggtta tctcacagga aattaggaat ggctggccag  
840  
aagttgggct cctccgctct cctgtgctac atccgccctg acactgccga tccagcaagt  
900  
agcttttagct tgactgtagc caatgttggc acgtgccaaag cagtccctgtg ccgagggtggg  
960  
aagccagtgc cctctctaa agtcttcagc ctggagcagg acccagagga ggctcaaagg  
1020  
gtgaaggacc aaaaagccat catcacagag gacaacaaag tgaatggggg aacctgctgt  
1080  
acccggatgc tgggctgtac atacctctac ccttggatcc tccccaagcc ccacatatct  
1140  
tccactccgc tgaccattca agatgagttg ctgattctgg gaaacaaagc attgtgggaa  
1200  
cacttgctct acacagaagc tgtcaatgct gtacgtcacg tacaagacc attagcagct  
1260  
gctaagaagc tgtgcacatt agcgcagagc tatggctgtc aggacagtgt aggggogatg  
1320  
gtagtttatt tgaatattgg tgaggaagge tgcacttgtg aaatgaatgg gctcacccctc  
1380  
ccaggctcctg tgggatttgc ttcaaccacc actatcaagg atgcccctaa gccagccact  
1440  
ccatcctcta gcagtgggat tgctctgag ttcagcagtg agatgtccac ctacagaggtg  
1500  
agcagtgaag tgggggtccac tgcttctgat gagcataatg ctgggggcct ggacactgcc  
1560  
ttgcttccga ggccagagcg gcgctgcagc ctccacccaa caccacacctc tgggctgttt  
1620  
cagcgccagc cttcttctgc taccttctcc agtaaccagt ctgacaacgg cctggacagt  
1680  
gatgatgacc agcccgttga gggggtcata accaatggca gcaaggtaga ggtggaagta  
1740  
gacatccact gctgcagggg gagggatctg gagaactcac cccctctcat agagagttct  
1800  
cctaccctgt gttctgagga acatgctaga gggctgtgtt ttgggatccg aagacagaac  
1860  
agtgtgaata gtggcatgct cctgccaatg agcaaggaca ggatggagtt acagaagtct  
1920  
cctccacct cctgcctcta tgggaagaaa ctctccaatg gctctattgt gccctagag  
1980  
gacagcctga acctcattga agtggccaca gaagtgccca agaggaaaac tggctatttt  
2040  
gctgccccca ctacagatgga accagaggac cagtttgttg tgctcatga cctggaagaa  
2100  
gaagtgaagg aacaaatgaa acagcaccag gacagccggc tcgagcctga gccccatgaa  
2160  
gaggatcgga ccgagcccc ggaggagtgc gacacagcac tatgactgcc cactgggca  
2220  
cagtggtggga ggaggctgtg caggggtggg gtagggactt gctagaggca ttctgcctct  
2280

acattttcttt ttgtttgttc gttttttttt tgtttgtttg ttttgagacg gagtcttgct  
2340  
cagtcgctca ggctggagtg caatgggtggg gtctcggggc actgcagcct ctgtccctgg  
2400  
gttcaagcca ttctcctgtc tcagcctccc gagtagctgg gattacaggc acctgccatt  
2460  
atgcccggct aagttttatt ttttttttta gagacggggg ttcaccatgt tggccaggct  
2520  
gggtgtgaac tcttgacctc aggtgatcca cctcctctg cctcccaaag tgctgtgatt  
2580  
acaggcctca gccaccatgc ccagccctgc gtctacattt ctaaaccata gctgtgtggg  
2640  
gttgaactcg gagccaaaaa gtgtgagagc catcaggggc tggtcttgga taaactggta  
2700  
gccactatca gtgttaagtt tcacatttaa cctgcattgg aattcccagg ggtactggga  
2760  
agaaagcagc tgttctgtat cagtctacc acctgccatt aaccctttct ctctaggat  
2820  
cattttgaga atttgacctc ctgggcagga aagggactat ttctgtggag gaaaaaagt  
2880  
aagattgatt ctctttacta gttgctgctg atggatctct gtgacagaga aatcacctta  
2940  
tctcagacta atgggggtgtg atgtgactag tcacatggct tttcattctt ctctacgaga  
3000  
atacagccta tcaaaatgat gtctgttgga aatgtagaac caatcaaaca gataatttat  
3060  
gtatgtaatg taatgagagc acttttcatt gactgtgaac tttttatttt tgaatctgca  
3120  
ctcgagccaa tcttcttaga ggcagcccg gaccttcac cataggcaga gagagaactg  
3180  
gggtgttgag acttattcga gggatatagga agggccctgt gaagttgatt taacttttgg  
3240  
atgtcagact gtgaaagctc ctgagaaact tggggtaata ggatcttctt ttggggatga  
3300  
aaatggggaa ggcgtgagga cctagactac ttctccctag atcagaaaaa gagaattacc  
3360  
ccttgacaaa tatgatacct gctaggtatt toccaggga attagggat tggcctcttt  
3420  
ccctagcatg tggaggaatt ggcagacagc ttcctaaggg cggggagcgg gggcccaagg  
3480  
ccgacactgc ttgcatccac gtgaccttaa gttatggcag atgactctga aacggactga  
3540  
ggccaatgag aacagatgga tggagcactc aggttagact tgttccttct cctatgctgg  
3600  
aggagagga tggttctcta gaatgttgga ggtgagttga gagctcgct cttgaatgtt  
3660  
gaacagtgta ctcttctgaa aactgcatat tcactttatg tggtttcaga atactgggct  
3720  
caatactaac ataagaaaga cacttcattg agaaattctt aagcttacag aaaacctata  
3780  
ctctttgcac attccacata accctagcaa atgcagttt cttcatactt ctgtcacttt  
3840  
ttccattgga agatttgctt aggaaaatta attcctattt attcccacaa aatgttggca  
3900



ttgcttgatt ttacccaatg gggaaatgtgc tttgaatttt tggaacactt ttacaattaa  
3960  
aaataaagta gggccatttt taatttgttt catcagaaac tatgttaaag agagggttaa  
4020  
atataaatat attttcgtgt gtatttttgg gaagattttt gttcaaagca atagtcaaaa  
4080  
tcagatgacc tgtccataat aattatgtgt cttcatcttc tcagaggccc catgctcata  
4140  
tgcacgtgtc attgggatac actcttgggg gatttggtac actctaattg atgtctaattg  
4200  
ttcaaccctt cgagaatctg aacttgagtc cccagattgt caaactactg gtcagctatt  
4260  
gagaatttta gaactcaggt ctttgatttg aagtagggaa catagtggct cacacagagt  
4320  
ttaggtgctg ttagaaagat gggacaaga gtgttttgcc acctatttt tatatgggaa  
4380  
atttttttta atgaagaaaa aatgaaaatg aaataacagg atgatagtga tgagtgatgt  
4440  
aaaacatctt acttagatgg cagaaccttc gggttgtaga atagtgatgt ctaaaaatta  
4500  
aagttatttt gggatacac cactttaata gtatagctt ataaaaatta ttcattatgg  
4560  
tgaacccttc ttgtctgcta ttcgtttccc aacctactta ttggaaccac ctcaaaaccc  
4620  
agttctgaaa tgaccttacc aaaagtaaat gtatttattt ttagtcagc agaactctgt  
4680  
aattccaaat gttgttctgt gtggtagaat ttttttcag gaaccattag gttgtattga  
4740  
aaatctttgt tataggcat accaaaactg attattcttt tttgcagtct gctttaattc  
4800  
atgtccttct gcagttgtc tgtattaaaa cagggtaaaa aggccatagc ccattatgaa  
4860  
aaatataata caaaactctt tgacctatga ggtaacttac agacattgtg ttttctaaac  
4920  
aggctgtcag tgaaagcccg tatctgtctc cagggtaatg taatttactt ccgagtactt  
4980  
taccagagg atgtattccc cagggtggca gactacagtt gatctctagc acagacagag  
5040  
attctggcct ctgcatatc tcaggtctct gtgtgtacct cccattgagt agagaagctt  
5100  
aagataattt ctgagagaag aacctgctg attgtgggag cagtttagga gtccatggaa  
5160  
aaaagaaaaa tacatgtgtc ttggcagcca tgggtgtattt ttgtccaaat ggattggaag  
5220  
gatatttgaa tatttgaatg ttggtatgac ataaagctgc agtgcactat agagtcaagt  
5280  
cattgaatta cactcctga tacagggctt tattgtacta ctgtgaagtg tatgtgtgca  
5340  
atacattggg gagttcattt actggtgtac ggaagagcca gcaggagcag cgtggtcatt  
5400  
gctgggtgct attacagttg cttgtagtga gtgctgtttt ccaggagatg gagccagttg  
5460  
ggtgtggcag atctactgaa tatcaaatga tgctcttctt cccatgtaga ccttcagcaa  
5520

aagccggtac ttggaagcca caggctcacc ttctctatct atccaataat tattaatgaa  
 5580  
 gagacctcca taaggagca gctggctgtt atcgataaat gtaccaatta ttaaataatt  
 5640  
 agtctccaag ccattcagt atgtcttcag catcactata ggactgtcta gtgtcacttt  
 5700  
 ttacttcctt ctgggtggag gctttccgac tcccaatcat gaaggcaagt taatctttcc  
 5760  
 agttagtac ttttcccca tagttgggt aagcacttcc tagattgaga aaaagcagct  
 5820  
 acagtcaatc ctgctctgtt tgcctcattt ggtgatcagt cagtcacaca taagtctctt  
 5880  
 gtattctaaa tttcatgcac ttctcccaga tgctataggg tttctctca ctgttgccaa  
 5940  
 tggatgtcat ccagacagt ggctcatatc ttacgggttt gtgcaatcat tgcgtattg  
 6000  
 tagctttaag actcattata gtgtattttt gatatttttg aaatgtgtta aattttttaa  
 6060  
 ttcagtaata tgagccagag catgttgag caaatctatt gtttgtaaaa ataacaataa  
 6120  
 caataataaa taaaataaag tggaatcttt ttcatggctt tgttttaaaa a  
 6171

&lt;210&gt; 900

&lt;211&gt; 734

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 900

Phe	Ser	Lys	Ala	Leu	Asn	Leu	Arg	Tyr	Leu	Asn	Ala	Ser	Ala	Asn	Ser
1				5					10					15	
Leu	Glu	Ser	Leu	Pro	Ser	Ala	Cys	Thr	Gly	Glu	Glu	Ser	Leu	Ser	Met
			20					25					30		
Leu	Gln	Leu	Leu	Tyr	Leu	Thr	Asn	Asn	Leu	Leu	Thr	Asp	Gln	Cys	Ile
		35					40					45			
Pro	Val	Leu	Val	Gly	His	Leu	His	Leu	Arg	Ile	Leu	His	Leu	Ala	Asn
	50					55					60				
Asn	Gln	Leu	Gln	Thr	Phe	Pro	Ala	Ser	Lys	Leu	Asn	Lys	Leu	Glu	Gln
65				70						75				80	
Leu	Glu	Glu	Leu	Asn	Leu	Ser	Gly	Asn	Lys	Leu	Lys	Thr	Ile	Pro	Thr
			85					90					95		
Thr	Ile	Ala	Asn	Cys	Lys	Arg	Leu	His	Thr	Leu	Val	Ala	His	Ser	Asn
		100					105					110			
Asn	Ile	Ser	Ile	Phe	Pro	Glu	Ile	Leu	Gln	Leu	Pro	Gln	Ile	Gln	Phe
	115					120					125				
Val	Asp	Leu	Ser	Cys	Asn	Asp	Leu	Thr	Glu	Ile	Leu	Ile	Pro	Glu	Ala
	130				135						140				
Leu	Pro	Ala	Thr	Leu	Gln	Asp	Leu	Asp	Leu	Thr	Gly	Asn	Thr	Asn	Leu
145				150					155					160	
Val	Leu	Glu	His	Lys	Thr	Leu	Asp	Ile	Phe	Ser	His	Ile	Thr	Thr	Leu
		165					170						175		
Lys	Ile	Asp	Gln	Lys	Pro	Leu	Pro	Thr	Thr	Asp	Ser	Thr	Val	Thr	Ser
		180					185						190		
Thr	Phe	Trp	Ser	His	Gly	Leu	Ala	Glu	Met	Ala	Gly	Gln	Arg	Asn	Lys

195	200	205
Leu Cys Val Ser Ala	Leu Ala Met Asp Ser Phe	Ala Glu Gly Val Gly
210	215	220
Ala Val Tyr Gly Met Phe	Asp Gly Asp Arg Asn	Glu Glu Leu Pro Arg
225	230	235
Leu Leu Gln Cys Thr Met	Ala Asp Val Leu Leu	Glu Glu Val Gln Gln
245	250	255
Ser Thr Asn Asp Thr Val	Phe Met Ala Asn Thr	Phe Leu Val Ser His
260	265	270
Arg Lys Leu Gly Met Ala	Gly Gln Lys Leu Gly	Ser Ser Ala Leu Leu
275	280	285
Cys Tyr Ile Arg Pro Asp	Thr Ala Asp Pro Ala	Ser Ser Phe Ser Leu
290	295	300
Thr Val Ala Asn Val Gly	Thr Cys Gln Ala Val	Leu Cys Arg Gly Gly
305	310	315
Lys Pro Val Pro Leu Ser	Lys Val Phe Ser Leu	Glu Gln Asp Pro Glu
325	330	335
Glu Ala Gln Arg Val Lys	Asp Gln Lys Ala Ile	Ile Thr Glu Asp Asn
340	345	350
Lys Val Asn Gly Val Thr	Cys Cys Thr Arg Met	Leu Gly Cys Thr Tyr
355	360	365
Leu Tyr Pro Trp Ile Leu	Pro Lys Pro His Ile	Ser Ser Thr Pro Leu
370	375	380
Thr Ile Gln Asp Glu Leu	Ile Leu Gly Asn Lys	Ala Leu Trp Glu
385	390	395
His Leu Ser Tyr Thr Glu	Ala Val Asn Ala Val	Arg His Val Gln Asp
405	410	415
Pro Leu Ala Ala Ala Lys	Lys Leu Cys Thr Leu	Ala Gln Ser Tyr Gly
420	425	430
Cys Gln Asp Ser Val Gly	Ala Met Val Val Tyr	Leu Asn Ile Gly Glu
435	440	445
Glu Gly Cys Thr Cys Glu	Met Asn Gly Leu Thr	Leu Pro Gly Pro Val
450	455	460
Gly Phe Ala Ser Thr Thr	Thr Ile Lys Asp Ala	Pro Lys Pro Ala Thr
465	470	475
Pro Ser Ser Ser Ser Gly	Ile Ala Ser Glu Phe	Ser Ser Glu Met Ser
485	490	495
Thr Ser Glu Val Ser Ser	Glu Val Gly Ser Thr	Ala Ser Asp Glu His
500	505	510
Asn Ala Gly Gly Leu Asp	Thr Ala Leu Leu Pro	Arg Pro Glu Arg Arg
515	520	525
Cys Ser Leu His Pro Thr	Pro Thr Ser Gly Leu	Phe Gln Arg Gln Pro
530	535	540
Ser Ser Ala Thr Phe Ser	Ser Asn Gln Ser Asp	Asn Gly Leu Asp Ser
545	550	555
Asp Asp Asp Gln Pro Val	Glu Gly Val Ile Thr	Asn Gly Ser Lys Val
565	570	575
Glu Val Glu Val Asp Ile	His Cys Cys Arg Gly	Arg Asp Leu Glu Asn
580	585	590
Ser Pro Pro Leu Ile Glu	Ser Ser Pro Thr Leu	Cys Ser Glu Glu His
595	600	605
Ala Arg Gly Ser Cys Phe	Gly Ile Arg Arg Gln	Asn Ser Val Asn Ser
610	615	620
Gly Met Leu Leu Pro Met	Ser Lys Asp Arg Met	Glu Leu Gln Lys Ser

```

625          630          635          640
Pro Ser Thr Ser Cys Leu Tyr Gly Lys Lys Leu Ser Asn Gly Ser Ile
          645          650          655
Val Pro Leu Glu Asp Ser Leu Asn Leu Ile Glu Val Ala Thr Glu Val
          660          665          670
Pro Lys Arg Lys Thr Gly Tyr Phe Ala Ala Pro Thr Gln Met Glu Pro
          675          680          685
Glu Asp Gln Phe Val Val Pro His Asp Leu Glu Glu Glu Val Lys Glu
          690          695          700
Gln Met Lys Gln His Gln Asp Ser Arg Leu Glu Pro Glu Pro His Glu
705          710          715          720
Glu Asp Arg Thr Glu Pro Pro Glu Glu Phe Asp Thr Ala Leu
          725          730

```

<210> 901  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

```

<400> 901
tcattgatcca cctgcctcgg cctcccaaag tgctgggatt acatacagat ggcaaacttc
60
atttcctttt tctcttaatg caacaaggtc atcccaagat caggttctct tcagtttctg
120
tggttaagtag tgatggacac ttatggagtt ttcagagact tatgcattgg gtaacaaggc
180
actgcaagag accccagata gcacagcatc atctcacatt tacaccacat cacatcaaca
240
tcgatgctag gaggtctaaa gctgatgcc a cttcagagc tgcaagtatc caaaagactc
300
cactcatga
309

```

<210> 902  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

```

<400> 902
Met Ile His Leu Pro Arg Pro Pro Lys Val Leu Gly Leu His Thr Asp
1          5          10          15
Gly Lys Leu His Phe Leu Phe Leu Leu Met Gln Gln Gly His Pro Lys
20          25          30
Ile Arg Leu Pro Ser Val Ser Val Val Ser Ser Asp Gly His Leu Trp
35          40          45
Ser Phe Gln Arg Leu Met His Trp Val Thr Arg His Cys Lys Arg Pro
50          55          60
Gln Ile Ala Gln His His Leu Thr Phe Thr Pro His His Ile Asn Ile
65          70          75          80
Asp Ala Arg Arg Ser Lys Ala Asp Ala Thr Phe Arg Ala Ala Ser Ile
85          90          95
Gln Lys Thr Pro Leu Met
100

```

<210> 903  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 903  
 agatcttagt gaaaactgga agcaggaaga ataagttagt catggaagcc actttggctc  
 60  
 taagggtctt gatggcctca tgggttgaca ggaacagaag acaaagacta gggcccaccc  
 120  
 aagggtgtgaa gtctaattagg aaaccttttc tccataaggc tacaatgggt ctaccaaaaa  
 180  
 taaaaccatg ccaccccagg gactgcagcc caattttata tcaccatgag gtccaaaaaa  
 240  
 ttccaagctg tgaatttagt ttcaaatggc cttggtctcc agtatcccta gccatgtggc  
 300  
 aaaaacaaac aattctcttt ggaggataca tctttatctt aagacttgn  
 349

<210> 904  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 904  
 Met Glu Ala Thr Leu Ala Leu Arg Ala Leu Met Ala Ser Trp Val Asp  
 1 5 10 15  
 Arg Asn Arg Arg Gln Arg Leu Gly Pro Thr Gln Gly Val Lys Ser Asn  
 20 25 30  
 Arg Lys Pro Phe Leu His Lys Ala Thr Met Gly Leu Pro Lys Ile Lys  
 35 40 45  
 Pro Cys His Pro Arg Asp Cys Ser Pro Ile Leu Tyr His His Glu Val  
 50 55 60  
 Gln Lys Ile Pro Ser Cys Glu Phe Ser Phe Lys Trp Pro Trp Ser Pro  
 65 70 75 80  
 Val Ser Leu Ala Met Trp Gln Lys Gln Thr Ile Leu Phe Gly Gly Tyr  
 85 90 95  
 Ile Phe Ile Leu Arg Leu  
 100

<210> 905  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 905  
 nntccggaac cgggtggtgtg gaccgagcac gattctcacc tagctcacc ggatcagcgt  
 60  
 ctcaacgaag acatcattat cgcggtgac cgggcagacg cggtgattag cgtatcccag  
 120  
 gggctctgcg acaggctggc tggacatggc gtgacctcaa cggtggttcc caacatcggt  
 180  
 gacgtcgagc tgtttgaccg tcttgatcga cgacatgagg ggacgatcgt cgtcagcgct  
 240

gccaccctca acccgggaaa gggcatgatt gagttagctc aggctgttga gcgtcttccc  
 300  
 gaggttcagt tgagaatcat cggagatgga ccgcagcggc accaactgga ggccattgcc  
 360  
 gctgataatc cacgcgt  
 377

<210> 906  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 906  
 Xaa Pro Glu Pro Val Val Trp Thr Glu His Asp Ser His Leu Ala His  
 1 5 10 15  
 Pro Asp Gln Arg Leu Asn Glu Asp Ile Ile Ala Gly Asp Arg Ala  
 20 25 30  
 Asp Ala Val Ile Ser Val Ser Gln Gly Leu Cys Asp Arg Leu Ala Gly  
 35 40 45  
 His Gly Val Thr Ser Thr Val Val Pro Asn Ile Val Asp Val Glu Leu  
 50 55 60  
 Phe Asp Arg Pro Asp Arg Arg His Glu Gly Thr Ile Val Val Ser Val  
 65 70 75 80  
 Ala Thr Leu Asn Pro Gly Lys Gly Met Ile Glu Leu Ala Gln Ala Val  
 85 90 95  
 Glu Arg Leu Pro Glu Val Gln Leu Arg Ile Ile Gly Asp Gly Pro Gln  
 100 105 110  
 Arg His Gln Leu Glu Ala Ile Ala Ala Asp Asn Pro Arg  
 115 120 125

<210> 907  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 907  
 acgcgtagga tgatgaagtc cgtcactgga tcgttcttgg gtggcaaccg ggaagtcggt  
 60  
 gaccagttct tcaacggcga ggttcaactg aaccttggtc cgcagggtac attcgccgag  
 120  
 cgcattcgtg ccggcgctgc tggatttgca gcattcttca cgctactgg ctatggtaca  
 180  
 gccgtgcaga aggggtgagct tgttcttaag tatgaaaaga aggacggtaa ggctgtgcca  
 240  
 gtcatgacgt ccaagccgcg tgaagtgcgc tcgtttgacg gccgtgacta tataatagaa  
 300  
 gaggttatta aggatgaata ggatatggtg aa  
 332

<210> 908  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 908

Thr Arg Arg Met Met Lys Ser Val Thr Gly Ser Phe Leu Gly Gly Asn  
 1 5 10 15  
 Arg Glu Val Gly Asp Gln Phe Phe Asn Gly Glu Val Gln Leu Asn Leu  
 20 25 30  
 Val Pro Gln Gly Thr Phe Ala Glu Arg Ile Arg Ala Gly Ala Ala Gly  
 35 40 45  
 Ile Ala Ala Phe Phe Thr Pro Thr Gly Tyr Gly Thr Ala Val Gln Lys  
 50 55 60  
 Gly Glu Leu Val Leu Lys Tyr Glu Lys Lys Asp Gly Lys Ala Val Pro  
 65 70 75 80  
 Val Met Thr Ser Lys Pro Arg Glu Val Arg Ser Phe Asp Gly Arg Asp  
 85 90 95  
 Tyr Ile Ile Glu Glu Val Ile Lys Asp Glu  
 100 105

&lt;210&gt; 909

&lt;211&gt; 318

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 909

acgcgctcggg catggcagct gtacagatct atcgcgctcag cagggcctac gcacacatga  
 60  
 tgccgcaggg gcaccgacgc tgctgccatc aaaagagccg cctcgcgccc gcagcgctc  
 120  
 ccagggaagg cgactcacgt ggctcgacac gcgcgcgcga gtcgctggg tgtgtcacgc  
 180  
 cccttttttt cccaccccaa caccgaaccg gcgggccatg gctgaggatt cgcaccccat  
 240  
 tcgctccggc ttgcgcatgc tcaagcgctc ctggagctcg aatgagaatg taccgccgcc  
 300  
 acaaagctcg ccgccggc  
 318

&lt;210&gt; 910

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 910

Met Ala Ala Val Gln Ile Tyr Arg Val Ser Arg Ala Tyr Ala His Met  
 1 5 10 15  
 Met Pro Gln Gly His Arg Arg Cys Arg His Gln Lys Ser Arg Leu Ala  
 20 25 30  
 Pro Ala Ala Pro Pro Arg Asp Gly Asp Ser Arg Gly Ser Thr Arg Ala  
 35 40 45  
 Arg Glu Ser Arg Gly Cys Val Thr Pro Leu Phe Phe Pro Pro Gln His  
 50 55 60  
 Arg Thr Gly Gly Pro Trp Leu Arg Ile Arg Thr Pro Phe Ala Pro Ala  
 65 70 75 80  
 Cys Ala Cys Ser Ser Ala Pro Gly Ala Arg Met Arg Met Tyr Arg Arg  
 85 90 95  
 His Lys Ala Arg Arg Arg

100

<210> 911  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<400> 911  
 acgcgtgtgc agcactctcc acaagctggc cccaatcact ttgcatcaa attggtacag  
 60  
 caaccttatg aggetggcct tgggggaacc ctgttttagg gatgagctga acttaccggg  
 120  
 aggetgcatg cgaggttggt gtgaaatgca tatctggctt tgtagctggt cggctcacct  
 180  
 ctgggggttg cacaggggcg ggggttctgc catggctaga atgcgctaag ggggtgaaac  
 240  
 gaagcctgct gggcccgga accacagagc agcctggcct ttgaaggaga cctgtggca  
 300  
 cccctgccc accccaagt ccagccattt cacttcctg gagatggtgc aaagcaagaa  
 360  
 aaaaaaaaa atccagtgtt cttaggtcag ccttcacca gccaggattc atcgctgat  
 420  
 ctgtttgggg agagagcatg gagtgggtga gatgggttg gccccagtgt tttctgatta  
 480  
 actgcagtt cacctgaaac attttg  
 506

<210> 912  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 912  
 Met Phe Gln Val Asn Cys Glu Leu Ile Arg Lys His Trp Gly Pro Thr  
 1 5 10 15  
 His Leu His His Ser Met Leu Ser Pro Gln Thr Asp Gln Thr Met Asn  
 20 25 30  
 Pro Gly Trp Trp Lys Ala Asp Leu Arg Thr Leu Asp Phe Phe Phe Phe  
 35 40 45  
 Leu Ala Leu His His Leu Gln Gly Ser Glu Met Ala Gly Leu Gly Gly  
 50 55 60  
 Gly Gln Gly Val Pro Gln Gly Leu Leu Gln Arg Pro Gly Cys Ser Val  
 65 70 75 80  
 Val Pro Gly Pro Ser Arg Leu Arg Phe His Pro Leu Ala His Ser Ser  
 85 90 95  
 His Gly Arg Thr Pro Ala Pro Val Pro Thr Pro Glu Val Ser Arg Pro  
 100 105 110  
 Ala Thr Lys Pro Asp Met His Phe Thr Pro Thr Ser His Ala Ala Ser  
 115 120 125  
 Arg

<210> 913  
 <211> 339



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 913

cgcttcacg cgtggttcag gcgtacggtt ccggctactg gtgactaccg tggcacgaaa  
 60  
 tttttcgttc gcgagaacgg taaaaccttc gcaacctcga tgttcacggt ttgtgtcgcc  
 120  
 ctgggcgcca cggacctgct tttcgccctc gactcgattc cggcgctcta tggtttcacc  
 180  
 aacgaggggt accttatcct taccgctaac gtctttgctc tcatggggtt gcgtcagttg  
 240  
 tatttcctta ttggaagcct gttggaacgt ctggtgtact tgctcgtggg actgggtcgtg  
 300  
 attttgggct ttatcgccct caagctcatt ggccacgcg  
 339

&lt;210&gt; 914

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 914

Arg	Phe	Met	Ala	Trp	Phe	Arg	Arg	Thr	Val	Pro	Ala	Thr	Gly	Asp	Tyr
1				5				10					15		
Arg	Gly	Thr	Lys	Phe	Phe	Val	Arg	Glu	Asn	Gly	Lys	Thr	Leu	Ala	Thr
			20					25					30		
Ser	Met	Phe	Met	Val	Cys	Val	Ala	Leu	Gly	Ala	Thr	Asp	Leu	Leu	Phe
			35				40					45			
Ala	Leu	Asp	Ser	Ile	Pro	Ala	Ser	Tyr	Gly	Phe	Thr	Asn	Glu	Gly	Tyr
			50			55					60				
Leu	Ile	Leu	Thr	Ala	Asn	Val	Phe	Ala	Leu	Met	Gly	Leu	Arg	Gln	Leu
65					70				75					80	
Tyr	Phe	Leu	Ile	Gly	Ser	Leu	Leu	Glu	Arg	Leu	Val	Tyr	Leu	Ser	Leu
			85					90					95		
Gly	Leu	Val	Val	Ile	Leu	Gly	Phe	Ile	Ala	Leu	Lys	Leu	Ile	Gly	His
			100					105					110		

Ala

&lt;210&gt; 915

&lt;211&gt; 663

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 915

nnggtacctg tcaatcagta tgtaaacctc actttatgtc gtggttatcc acttctgat  
 60  
 gacagtgaag atcctgttgt ggacattggt gctgctaccc ctgtcatcaa tggacagtca  
 120  
 ttaaccaagg gagagacttg catgaatcct caggatttta agccaggagc aatggttctg  
 180  
 gagcagaatg gaaaatcggg acacactttg actggtgatg gtctcaatgg accatcagat  
 240

gcaagtgagc agagagtatc catggcatcg tcaggcagct cccagcctga actagtgact  
 300  
 atccctttga ttaagggccc taaaggggtt gggtttgcaa ttgctgacag ccctactgga  
 360  
 cagaagggtga aaatgatact ggatagtcag tgggtgtcaag gccttcagaa aggagatata  
 420  
 attaaggaaa tataccatca aaatgtgcag aatttaacac atctccaagt ggtagagggtg  
 480  
 ctaaagcagt ttccagtagg tgctgatgta ccattgctta tcttaagagg aggtccccct  
 540  
 tcaccaacca aaagtgccaa aatgaaaaca gataaaaagg aaaatgcagg aagtttggag  
 600  
 gccataaatg agcctattcc tcagcctatg ccttttccac cgagcattat caggtcagga  
 660  
 tcc  
 663

<210> 916

<211> 221

<212> PRT

<213> Homo sapiens

<400> 916

Xaa	Val	Pro	Val	Asn	Gln	Tyr	Val	Asn	Leu	Thr	Leu	Cys	Arg	Gly	Tyr
1				5				10						15	
Pro	Leu	Pro	Asp	Asp	Ser	Glu	Asp	Pro	Val	Val	Asp	Ile	Val	Ala	Ala
			20					25					30		
Thr	Pro	Val	Ile	Asn	Gly	Gln	Ser	Leu	Thr	Lys	Gly	Glu	Thr	Cys	Met
			35				40					45			
Asn	Pro	Gln	Asp	Phe	Lys	Pro	Gly	Ala	Met	Val	Leu	Glu	Gln	Asn	Gly
			50				55				60				
Lys	Ser	Gly	His	Thr	Leu	Thr	Gly	Asp	Gly	Leu	Asn	Gly	Pro	Ser	Asp
65				70				75					80		
Ala	Ser	Glu	Gln	Arg	Val	Ser	Met	Ala	Ser	Ser	Gly	Ser	Ser	Gln	Pro
			85					90					95		
Glu	Leu	Val	Thr	Ile	Pro	Leu	Ile	Lys	Gly	Pro	Lys	Gly	Phe	Gly	Phe
			100					105					110		
Ala	Ile	Ala	Asp	Ser	Pro	Thr	Gly	Gln	Lys	Val	Lys	Met	Ile	Leu	Asp
			115				120					125			
Ser	Gln	Trp	Cys	Gln	Gly	Leu	Gln	Lys	Gly	Asp	Ile	Ile	Lys	Glu	Ile
			130				135					140			
Tyr	His	Gln	Asn	Val	Gln	Asn	Leu	Thr	His	Leu	Gln	Val	Val	Glu	Val
145				150				155						160	
Leu	Lys	Gln	Phe	Pro	Val	Gly	Ala	Asp	Val	Pro	Leu	Leu	Ile	Leu	Arg
			165					170					175		
Gly	Gly	Pro	Pro	Ser	Pro	Thr	Lys	Ser	Ala	Lys	Met	Lys	Thr	Asp	Lys
			180					185					190		
Lys	Glu	Asn	Ala	Gly	Ser	Leu	Glu	Ala	Ile	Asn	Glu	Pro	Ile	Pro	Gln
			195				200					205			
Pro	Met	Pro	Phe	Pro	Pro	Ser	Ile	Ile	Arg	Ser	Gly	Ser			
			210				215					220			

<210> 917

<211> 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 917

atcgtggacc agaagtcccc tgagtgtggc ttctacggcc ttacgacaa gatcctgctt  
 60  
 ttcaaacatg accccacgtc ggccaacctc ctgcagctgg tgcgctcgtc cggagacatc  
 120  
 caggagggcg acctggtgga ggtggtgctg tcggcctcgg ccaccttcga ggacttccag  
 180  
 atccgcccgc acgccctcac ggtgcactcc tategggcgc ctgccttctg tgatcactgc  
 240  
 ggggagatgc tcttcggcct agtgcgccag ggectcaagt gcgatggctg cgggctgaac  
 300  
 taccacaagc gctgtgcctt cagcatcccc aacaactgta gtggggcccg caaacggcgc  
 360  
 ctgtcatcca cgtctctggc cagtggccac tcggtgcgcc tcggcacctc cgagtcctg  
 420  
 cctgcacgg ctgaagagga gccgtagcac caccgaactc ctgcctcgcc gtccccgtca  
 480  
 tcctcttcct cctcttctgc ctcatcgat acgggccgcc ccattgagct ggacaagatg  
 540  
 ctgctctcca aggtcaaggt gccgcacacc ttctcatcc acagctatac acggcccacc  
 600  
 gtttgccagg ctg  
 615

&lt;210&gt; 918

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 918

Ile Val Asp Gln Lys Phe Pro Glu Cys Gly Phe Tyr Gly Leu Tyr Asp  
 1 5 10 15  
 Lys Ile Leu Leu Phe Lys His Asp Pro Thr Ser Ala Asn Leu Leu Gln  
 20 25 30  
 Leu Val Arg Ser Ser Gly Asp Ile Gln Glu Gly Asp Leu Val Glu Val  
 35 40 45  
 Val Leu Ser Ala Ser Ala Thr Phe Glu Asp Phe Gln Ile Arg Pro His  
 50 55 60  
 Ala Leu Thr Val His Ser Tyr Arg Ala Pro Ala Phe Cys Asp His Cys  
 65 70 75 80  
 Gly Glu Met Leu Phe Gly Leu Val Arg Gln Gly Leu Lys Cys Asp Gly  
 85 90 95  
 Cys Gly Leu Asn Tyr His Lys Arg Cys Ala Phe Ser Ile Pro Asn Asn  
 100 105 110  
 Cys Ser Gly Ala Arg Lys Arg Arg Leu Ser Ser Thr Ser Leu Ala Ser  
 115 120 125  
 Gly His Ser Val Arg Leu Gly Thr Ser Glu Ser Leu Pro Cys Thr Ala  
 130 135 140  
 Glu Glu Glu Pro  
 145

<210> 919  
 <211> 294  
 <212> DNA  
 <213> Homo sapiens

<400> 919  
 accggtatgc gtccgctggc tgtgctcggc gacaacatca ccaccgacca tctatcgccg  
 60  
 acaaatgcga tctgctcga tagcgcagcg ggtgagtacc tcgccaagat gggcccgccg  
 120  
 gaagaagact tcatttcgaa cgcgacccat cgtggcgatc acctgaccgc acagcgcgcc  
 180  
 accttcgcca acccgacctt gctcaacgag atggccgtag tcgatggtga agtgaagaaa  
 240  
 ggctcgcttg cccgcgtgga accggaaggc catgtgatgc gcatgtggga agcc  
 294

<210> 920  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 920  
 Thr Gly Met Arg Pro Leu Ala Val Leu Gly Asp Asn Ile Thr Thr Asp  
 1 5 10 15  
 His Leu Ser Pro Thr Asn Ala Ile Leu Leu Asp Ser Ala Ala Gly Glu  
 20 25 30  
 Tyr Leu Ala Lys Met Gly Pro Pro Glu Glu Asp Phe Ile Ser Asn Ala  
 35 40 45  
 Thr His Arg Gly Asp His Leu Thr Ala Gln Arg Ala Thr Phe Ala Asn  
 50 55 60  
 Pro Thr Leu Leu Asn Glu Met Ala Val Val Asp Gly Glu Val Lys Lys  
 65 70 75 80  
 Gly Ser Leu Ala Arg Val Glu Pro Glu Gly His Val Met Arg Met Trp  
 85 90 95  
 Glu Ala

<210> 921  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 921  
 acgcgtttgc gcatcgcttt gaccggtctg acgatggctg agtacttccg cgatgttcag  
 60  
 aaccaggacg tgctgttggt catcgacaac atcttcgggt tctcccaggc tggttctgag  
 120  
 gtttcaacct tgctaggtcg tatgccctcg gcggtgggct accagcccaa ctgggccgac  
 180  
 gagatggggc aattgcagga gcgaatcacc tcgaccctg gtcactccat cacctcgatg  
 240  
 caggccgtct acgtccccgc tgacgattac accgaccctg ctccggcgac gaccttcgcc  
 300

cacctggatg ccaccacgga gctttctcgt gagattgcct ctctgaggct gtacccggcc  
360

gtggatccgc tggcgtcg  
378

<210> 922

<211> 126

<212> PRT

<213> Homo sapiens

<400> 922

Thr	Arg	Leu	Arg	Ile	Ala	Leu	Thr	Gly	Leu	Thr	Met	Ala	Glu	Tyr	Phe
1				5				10					15		
Arg	Asp	Val	Gln	Asn	Gln	Asp	Val	Leu	Leu	Phe	Ile	Asp	Asn	Ile	Phe
		20					25					30			
Arg	Phe	Ser	Gln	Ala	Gly	Ser	Glu	Val	Ser	Thr	Leu	Leu	Gly	Arg	Met
	35					40					45				
Pro	Ser	Ala	Val	Gly	Tyr	Gln	Pro	Asn	Leu	Ala	Asp	Glu	Met	Gly	Gln
	50				55				60						
Leu	Gln	Glu	Arg	Ile	Thr	Ser	Thr	Arg	Gly	His	Ser	Ile	Thr	Ser	Met
65			70					75					80		
Gln	Ala	Val	Tyr	Val	Pro	Ala	Asp	Asp	Tyr	Thr	Asp	Pro	Ala	Pro	Ala
		85					90				95				
Thr	Thr	Phe	Ala	His	Leu	Asp	Ala	Thr	Thr	Glu	Leu	Ser	Arg	Glu	Ile
	100						105				110				
Ala	Ser	Arg	Gly	Leu	Tyr	Pro	Ala	Val	Asp	Pro	Leu	Ala	Ser		
	115					120					125				

<210> 923

<211> 571

<212> DNA

<213> Homo sapiens

<400> 923

accggtatcg aactgccgca agacacgggc aagcatgtcg ccgacgaaca actgcaacgc  
60  
ctggacaccg cgctggagca cgtgcgcgga gaaatccgca ttaccctgga gcatgcacgc  
120  
caacgcaaga atgtcgaaga agaagacatc ttcgccgcc accttgcgct attggaagac  
180  
ccacgctgc tggacgccgc cactggtgcc atcgaacacg gcagcgccgc caccacgcc  
240  
tggcgcgatg caatccaggc gcaatgcgcc gtggtgctgg ccctgggcaa accgctgttt  
300  
gccgagcgcg ccaacgacct gcgcgatctg caacagcgag tactgcgtgc gctgttggg  
360  
gaagcctggc acttcgaatt gccggccggg ccgattttca ggnnggccat taacttacc  
420  
ccttcgcct tgttgcaact gaggccccaa aacgccgtgg gtatttgcat gccgaaggc  
480  
ggcgctacgt ctacgctgc gattttggcc cgaggcaaag gcttgccgtg cgtggtcgcg  
540  
ctggcgccg aagtgcctga cgtgcccacaa g  
571

<210> 924  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 924

```

Thr Gly Ile Glu Leu Pro Gln Asp Thr Gly Lys His Val Ala Asp Glu
 1           5           10          15
Gln Leu Gln Arg Leu Asp Thr Ala Leu Glu His Val Arg Gly Glu Ile
      20           25           30
Arg Ile Thr Leu Glu His Ala Arg Gln Arg Lys Asn Val Glu Glu Glu
      35           40           45
Asp Ile Phe Ala Ala His Leu Ala Leu Leu Glu Asp Pro Thr Leu Leu
      50           55           60
Asp Ala Ala Thr Gly Ala Ile Glu His Gly Ser Ala Ala Thr His Ala
      65           70           75           80
Trp Arg Asp Ala Ile Gln Ala Gln Cys Ala Val Leu Leu Ala Leu Gly
      85           90           95
Lys Pro Leu Phe Ala Glu Arg Ala Asn Asp Leu Arg Asp Leu Gln Gln
      100          105          110
Arg Val Leu Arg Ala Leu Leu Gly Glu Ala Trp His Phe Glu Leu Pro
      115          120          125
Ala Gly Pro Ile Phe Arg Xaa Ala Ile Asn Leu Pro Pro Ser Ala Leu
      130          135          140
Leu Gln Leu Ser Ala Gln Asn Ala Val Gly Ile Cys Met Ala Glu Gly
      145          150          155          160
Gly Ala Thr Ser His Val Ala Ile Leu Ala Arg Gly Lys Gly Leu Pro
      165          170          175
Cys Val Val Ala Leu Gly Ala Glu Val Leu Asp Val Pro Gln
      180          185          190

```

<210> 925  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<400> 925

```

acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg
60
ncatggtgtg tgcacgtgtg cnactgtgta tgcattgtaa tgtgcacgtg tgcactgtgt
120
gtggtgtgta tgcattggtg gtgcacgtgt gcactgtgtg tgtgtgtatg catgtgtgtg
180
cacgtgtgcc tgtgtgtatg catggtaatg tgcgtgtgca ctgtgtggtg tgtatgcatg
240
tgtgtgcacg tgtgcactgt gtatgcatag tgtgtgcacg tgtgcactgt gtgtggatgc
300
atggtaatgt gcacgtgtgc actgtgtgtg gtgtgtatga tgggtgtgtgc acgtgtgcac
360
ggtgtgtggt gtgtatgcat gtgtgtgcac gtgtgcactg tgtggcaggg gtgtttggtg
420
tgtgtgcatg tatgcatggt gtgtgcatac gtgtgcagca gcacctggtc ccattctccag
480

```

tgcccagcag catcacacgc actttggtgc ttataaatg catggtcagt gaggtgcca  
 540  
 gcaccaagct gtccctttac cataacacct ggaatagtc cctgtgataa gctatcacat  
 600  
 aggaaacatt tttaaaattt  
 620

<210> 926  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 926  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val Cys  
 35 40 45  
 Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Val Cys Leu  
 50 55 60  
 Cys Val Cys Met Val Met Cys Val Cys Thr Val Trp Cys Val Cys Met  
 65 70 75 80  
 Cys Val His Val Cys Thr Val Tyr Ala  
 85

<210> 927  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 927  
 gtgcacactc tggaagccac aggatggagc tcctagagat agtgaggcat gaccagaggg  
 60  
 aagaggcatt tggggctctg ttcagatcat tccaacagca aaccgggcat ggagacccca  
 120  
 tctcaggtct gtgtttctct gggggccacc cagccatcct gccaccagc tcagaggcag  
 180  
 ggacaaagcc ctccaagag gcagcaggca gcaagggtca gccagcgcag tggggacagg  
 240  
 caggtacaac ctggaaaccc caaaggaccc cagatggcaa tgtgacacgg cccatccacc  
 300  
 aagcacctgt aatgccggct tcccacagag gcgagccaga tcctggcact attctttaag  
 360

<210> 928  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 928  
 Met Glu Leu Leu Glu Ile Val Arg His Asp Gln Arg Glu Glu Ala Phe  
 1 5 10 15  
 Gly Val Leu Phe Arg Ser Phe Gln Gln Gln Thr Gly His Gly Asp Pro

```
<210> 929
<211> 2340
<212> DNA
<213> Homo sapiens
```

926



caagatttcc tgaacaactt cacgctcctg gagatctgca acctcacgcc tgatacactc  
 1140  
 tctggggact acaagageta ctggcacacc accttctacg agggcagctg ggcagagggc  
 1200  
 agctccgcag ggggctgcag gaaccaccct ggcacgttct ggaccaacce ccagtttaag  
 1260  
 atctctcttc ctgaggggga tgaccacagag gatgacgcag agggcaatgt tgtggctctgc  
 1320  
 acctgcctgg tggccctaata gcagaagaac tggcggcatg cacggcagca gggagcccag  
 1380  
 ctgcagacca ttggctttgt cctctacgcg gtcccaaaag agtttcagaa cattcaggat  
 1440  
 gtccacttga agaaggaatt cttcacgaag tatcaggacc acggcttctc agagatcttc  
 1500  
 accaactcac gggaggtgag cagccaactc cggctgcctc cgggggaata tatcattatt  
 1560  
 ccctccacct ttgagccaca cagagatgct gacttctctc ttcgggtctt caccgagaag  
 1620  
 cacagcgagt catgggaatt ggatgaagtc aactatgctg agcaactcca agaggaaaag  
 1680  
 gtctctgagg atgacatgga ccaggacttc ctacatttgt ttaagatagt ggcaggagag  
 1740  
 ggcaaggaga taggggtgta tgagctccag aggctgctca acaggatggc catcaaattc  
 1800  
 aaaagcttca agaccaaggg ctttggcctg gatgcttgcc gctgcatgat caacctcatg  
 1860  
 gataaagatg gctctggcaa gctggggctt ctagagttca agatcctgtg gaaaaaactc  
 1920  
 aagaaatgga tggacatctt cagagagtgt gaccaggacc attcaggcac cttgaactcc  
 1980  
 tatgagatgc gcctgggttat tgagaaagca ggcataagc tgaacaacaa ggtaatgcag  
 2040  
 gtcttggtgg ccaggatgac agatgatggc ctgatcatag actttgacag cttcatcagc  
 2100  
 tgtttctga ggctaaagac catgttcaca ttctttctaa ccatggaccc caagaatact  
 2160  
 ggccatattt gcttgagcct ggaacagtgg ctgcagatga ccatgtgggg atagaggcgc  
 2220  
 tgtaggagcc tggatcatctc taccagcagc agcagcagcg aggttctagc ccaggagggt  
 2280  
 ggggtgcttc ttgtagccct cagctctcca gtctctgctg atgaaatggg atccagggtg  
 2340

&lt;210&gt; 930

&lt;211&gt; 702

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 930

Met Val Ala His Ile Asn Asn Ser Arg Leu Lys Ala Lys Gly Val Gly  
 1 5 10 15  
 Gln His Asp Asn Ala Gln Asn Phe Gly Asn Gln Ser Phe Glu Glu Leu  
 20 25 30  
 Arg Ala Ala Cys Leu Arg Lys Gly Glu Leu Phe Glu Asp Pro Leu Phe

35	40	45
Pro Ala Glu Pro Ser Ser	Leu Gly Phe Lys Asp	Leu Gly Pro Asn Ser
50	55	60
Lys Asn Val Gln Asn Ile	Ser Trp Gln Arg Pro	Lys Asp Ile Ile Asn
65	70	75
Asn Pro Leu Phe Ile Met	Asp Gly Ile Ser Pro	Thr Asp Ile Cys Gln
85	90	95
Gly Ile Leu Gly Asp Cys	Trp Leu Leu Ala Ala	Ile Gly Ser Leu Thr
100	105	110
Thr Cys Pro Lys Leu Leu	Tyr Arg Val Val Pro	Arg Gly Gln Ser Phe
115	120	125
Lys Lys Asn Tyr Ala Gly	Ile Phe His Phe Gln	Ile Trp Gln Phe Gly
130	135	140
Gln Trp Val Asn Val Val	Asp Asp Arg Leu Pro	Thr Lys Asn Asp
145	150	155
Lys Leu Val Phe Val His	Ser Thr Glu Arg Ser	Glu Phe Trp Ser Ala
165	170	175
Leu Leu Glu Lys Ala Tyr	Ala Lys Leu Ser Gly	Ser Tyr Glu Ala Leu
180	185	190
Ser Gly Gly Ser Thr Met	Glu Gly Leu Glu Asp	Phe Thr Gly Gly Val
195	200	205
Ala Gln Ser Phe Gln Leu	Gln Arg Pro Pro Gln	Asn Leu Leu Arg Leu
210	215	220
Leu Arg Lys Ala Val Glu	Arg Ser Ser Leu Met	Gly Cys Ser Ile Glu
225	230	235
Val Thr Ser Asp Ser Glu	Leu Glu Ser Met Thr	Asp Lys Met Leu Val
245	250	255
Arg Gly His Ala Tyr Ser	Val Thr Gly Leu Gln	Asp Val His Tyr Arg
260	265	270
Gly Lys Met Glu Thr Leu	Ile Arg Val Arg Asn	Pro Trp Gly Arg Ile
275	280	285
Glu Trp Asn Gly Ala Trp	Ser Asp Ser Ala Arg	Glu Trp Glu Glu Val
290	295	300
Ala Ser Asp Ile Gln Met	Gln Leu Leu His Lys	Thr Glu Asp Gly Glu
305	310	315
Phe Trp Met Ser Tyr Gln	Asp Phe Leu Asn Asn	Phe Thr Leu Leu Glu
325	330	335
Ile Cys Asn Leu Thr Pro	Asp Thr Leu Ser Gly	Asp Tyr Lys Ser Tyr
340	345	350
Trp His Thr Thr Phe Tyr	Glu Gly Ser Trp Arg	Arg Gly Ser Ser Ala
355	360	365
Gly Gly Cys Arg Asn His	Pro Gly Thr Phe Trp	Thr Asn Pro Gln Phe
370	375	380
Lys Ile Ser Leu Pro Glu	Gly Asp Asp Pro Glu	Asp Asp Ala Glu Gly
385	390	395
Asn Val Val Val Cys Thr	Cys Leu Val Ala Leu	Met Gln Lys Asn Trp
405	410	415
Arg His Ala Arg Gln Gln	Gly Ala Gln Leu Gln	Thr Ile Gly Phe Val
420	425	430
Leu Tyr Ala Val Pro Lys	Glu Phe Gln Asn Ile	Gln Asp Val His Leu
435	440	445
Lys Lys Glu Phe Phe Thr	Lys Tyr Gln Asp His	Gly Phe Ser Glu Ile
450	455	460
Phe Thr Asn Ser Arg Glu	Val Ser Ser Gln Leu	Arg Leu Pro Pro Gly

465                      470                      475                      480  
 Glu Tyr Ile Ile Ile Pro Ser Thr Phe Glu Pro His Arg Asp Ala Asp  
                                  485                      490                      495  
 Phe Leu Leu Arg Val Phe Thr Glu Lys His Ser Glu Ser Trp Glu Leu  
                                  500                      505                      510  
 Asp Glu Val Asn Tyr Ala Glu Gln Leu Gln Glu Glu Lys Val Ser Glu  
                                  515                      520                      525  
 Asp Asp Met Asp Gln Asp Phe Leu His Leu Phe Lys Ile Val Ala Gly  
                                  530                      535                      540  
 Glu Gly Lys Glu Ile Gly Val Tyr Glu Leu Gln Arg Leu Leu Asn Arg  
 545                      550                      555                      560  
 Met Ala Ile Lys Phe Lys Ser Phe Lys Thr Lys Gly Phe Gly Leu Asp  
                                  565                      570                      575  
 Ala Cys Arg Cys Met Ile Asn Leu Met Asp Lys Asp Gly Ser Gly Lys  
                                  580                      585                      590  
 Leu Gly Leu Leu Glu Phe Lys Ile Leu Trp Lys Lys Leu Lys Lys Trp  
                                  595                      600                      605  
 Met Asp Ile Phe Arg Glu Cys Asp Gln Asp His Ser Gly Thr Leu Asn  
 610                      615                      620  
 Ser Tyr Glu Met Arg Leu Val Ile Glu Lys Ala Gly Ile Lys Leu Asn  
 625                      630                      635                      640  
 Asn Lys Val Met Gln Val Leu Val Ala Arg Tyr Ala Asp Asp Gly Leu  
                                  645                      650                      655  
 Ile Ile Asp Phe Asp Ser Phe Ile Ser Cys Phe Leu Arg Leu Lys Thr  
                                  660                      665                      670  
 Met Phe Thr Phe Phe Leu Thr Met Asp Pro Lys Asn Thr Gly His Ile  
                                  675                      680                      685  
 Cys Leu Ser Leu Glu Gln Trp Leu Gln Met Thr Met Trp Gly  
                                  690                      695                      700

<210> 931  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 931  
 tcgcgaaggg agcctgacat gggccagaa atcaatcccc atggtttccg tctcggtgtg  
 60  
 acgaccgatc acaagaccgc ctggtacgcc gagaagcagt acgccgagct cgtgggtgag  
 120  
 gatgtcaaga tccgagagt gctccacaag aatctggagc gcgccggtct tctgtccatc  
 180  
 gagatcgagc gtcgctccga gcgcgtgacc attttccttt acgccgctcg cccgggcatc  
 240  
 gttatcgggc gcaatggccg ggaggccgag cgcgtgcgtn ntgagctcga aaagctt  
 297

<210> 932  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 932  
 Met Gly Gln Lys Ile Asn Pro His Gly Phe Arg Leu Gly Val Thr Thr

```

      1             5             10             15
Asp His Lys Thr Arg Trp Tyr Ala Glu Lys Gln Tyr Ala Glu Leu Val
      20             25             30
Gly Glu Asp Val Lys Ile Arg Glu Trp Leu His Lys Asn Leu Glu Arg
      35             40             45
Ala Gly Leu Ser Ser Ile Glu Ile Glu Arg Arg Ser Glu Arg Val Thr
      50             55             60
Ile Phe Leu Tyr Ala Ala Arg Pro Gly Ile Val Ile Gly Arg Asn Gly
      65             70             75             80
Arg Glu Ala Glu Arg Val Arg Xaa Glu Leu Glu Lys Leu
      85             90

```

&lt;210&gt; 933

&lt;211&gt; 305

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 933

```

nnacgcgtcg ccaagctgtt gatggccgaa tacaaggggc tcaacgtcat cgtcaaaacc
60
tccgccgata cggcaagcca agccaatgcc gtgcaggata tggcgggggc aggcatcgac
120
gcgctggcca tcttgcgcac cgacccggat cagctgggtt cggcgatcca gcagggtcaag
180
gacgacggca agttcgtggc gctggtcgac cgtgcgcctt cctcaacga caacacgatac
240
cgcatctct acgtggcccg caacaacccg gcgctcgcg aagtggcggg caaattcatg
300
ggcga
305

```

&lt;210&gt; 934

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 934

```

Xaa Arg Val Ala Lys Leu Leu Met Ala Glu Tyr Lys Gly Leu Asn Val
1             5             10             15
Ile Val Lys Thr Ser Ala Asp Pro Ala Ser Gln Ala Asn Ala Val Gln
      20             25             30
Asp Leu Ala Gly Ala Gly Ile Asp Ala Leu Ala Ile Leu Pro Thr Asp
      35             40             45
Pro Asp Gln Leu Val Ser Ala Ile Gln Gln Val Lys Asp Asp Gly Lys
      50             55             60
Phe Val Ala Leu Val Asp Arg Ala Pro Ser Val Asn Asp Asn Thr Ile
      65             70             75             80
Arg Asp Leu Tyr Val Ala Gly Asn Asn Pro Ala Leu Gly Glu Val Ala
      85             90             95
Gly Lys Phe Met Gly
      100

```

&lt;210&gt; 935

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 935

acgcgtgaag ggctgatgag tgctatgaaa aagccagggg cccgaggaca ctgggggtgga  
 60  
 caggctcccc tggggaagtc ctcttagaac tgagggatca acactggagg agactgcaag  
 120  
 gggtagggga taaatgttcc tggtagaagga aacagcaggg gcaaaggccc tgcagcagaa  
 180  
 aggagcaggg ccctttggag taacagaaaag accatgggtga caggagctca gaaagaccac  
 240  
 tgggtgtaag actataagcc agtggaggcc agattgggga atgggatggg aggggtgctt  
 300  
 gaagaccatg gtgaggetct ctgggtcttt act  
 333

&lt;210&gt; 936

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 936

Met Val Phe Lys His Pro Ser His Pro Ile Pro Gln Ser Gly Leu His  
 1 5 10 15  
 Trp Leu Ile Val Leu Thr Pro Val Val Phe Leu Ser Ser Cys His His  
 20 25 30  
 Gly Leu Ser Val Thr Pro Lys Gly Leu Ala Pro Phe Cys Cys Arg Ala  
 35 40 45  
 Phe Ala Pro Ala Val Ser Phe Thr Arg Asn Ile Tyr Pro Val Pro Leu  
 50 55 60  
 Ala Val Ser Ser Ser Val Asp Pro Ser Val Leu Arg Gly Leu Pro Gln  
 65 70 75 80  
 Gly Ser Leu Ser Thr Pro Val Ser Ser Gly Pro Trp Leu Phe His Ser  
 85 90 95  
 Thr His Gln Pro Phe Thr Arg  
 100

&lt;210&gt; 937

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 937

nnnttatctg cggagggggg ggccaccctg cccacactca tgctgcaggc ctccaccgac  
 60  
 ccggcgagac acgagctcaa ggatctgttg acggccgacc tcatggacca gcacaacctc  
 120  
 gaccgtgccc tggcagggtt gcgtgccagt cacgtcatcg acgaagctcg cgccgaggtg  
 180  
 cagcggcggtg ccgatctcgc ccgtggccat ctcgccatcc ttcccgagg cgatgccgt  
 240  
 acggcggttg agacctgtg cgacgaggtg ggttcccggg cggcctgaac cccgaccctg  
 300

ccagctgcg tcccatctcc tggccgggac cgctccagcg tctgctctct gacagctcat  
 360  
 cgttcttccg acaccaagga gtttctcgtg gcccgctcgc tcatctcat cggcattggt  
 420  
 cccggcaacc cggactggat caccctggct gccgtcaagg ccan  
 464

<210> 938

<211> 95

<212> PRT

<213> Homo sapiens

<400> 938

Xaa	Leu	Ser	Ala	Glu	Gly	Val	Ala	Thr	Leu	Pro	Thr	Leu	Met	Leu	Gln
1				5					10					15	
Ala	Ser	Thr	Asp	Pro	Ala	Asp	Asp	Glu	Leu	Lys	Asp	Leu	Leu	Thr	Ala
			20					25					30		
Asp	Leu	Met	Asp	Gln	His	Asn	Leu	Asp	Arg	Ala	Leu	Ala	Gly	Leu	Arg
		35					40					45			
Ala	Ser	His	Val	Ile	Asp	Glu	Ala	Arg	Ala	Glu	Val	Gln	Arg	Arg	Ala
	50					55				60					
Asp	Leu	Ala	Arg	Gly	His	Leu	Ala	Ile	Leu	Pro	Ala	Gly	Asp	Ala	Arg
65					70					75				80	
Thr	Ala	Leu	Glu	Thr	Leu	Cys	Asp	Glu	Val	Gly	Ser	Arg	Ala	Ala	
			85						90					95	

<210> 939

<211> 385

<212> DNA

<213> Homo sapiens

<400> 939

ntgactatcc tcgaccccgga tggctcaggag acgactccag gaagtgtcat cgaagggcctt  
 60  
 ggactgctgc cggctcagggt ggacttcgcc gccacgaaga cccttgccctt gtcgcacggg  
 120  
 acatggcggg ggatcgaggt tggctggctat gaaatccatc acgggctctc gtcgttcgct  
 180  
 gaggacgctg aagccttcct cgacggcgta cacgtcggtc cggatatggg gacgatgtgg  
 240  
 cacggggcat tcgagcacga cgaattccgt cgcacgtggc tggctgacgc ggcccgtcac  
 300  
 gctggatcat cctggcgtcc gcaactccgac gagctgggtt atcaggctcg acgcgagggc  
 360  
 atgatcgaaa ccctcgccga cgcgt  
 385

<210> 940

<211> 128

<212> PRT

<213> Homo sapiens

<400> 940

Xaa Thr Ile Leu Asp Pro Asp Gly Gln Glu Thr Thr Pro Gly Ser Val

```

      1           5           10           15
Ile Glu Gly Leu Gly Leu Leu Pro Val Glu Val Asp Phe Ala Ala Thr
      20           25           30
Lys Thr Leu Ala Leu Ser His Gly Thr Trp Arg Gly Ile Glu Val Gly
      35           40           45
Gly Tyr Glu Ile His His Gly Arg Leu Ser Phe Ala Glu Asp Ala Glu
      50           55           60
Ala Phe Leu Asp Gly Val His Val Gly Pro Val Trp Gly Thr Met Trp
      65           70           75           80
His Gly Ala Phe Glu His Asp Glu Phe Arg Arg Thr Trp Leu Ala Asp
      85           90           95
Ala Ala Arg His Ala Gly Ser Ser Trp Arg Pro His Ser Asp Glu Leu
      100          105          110
Gly Tyr Gln Ala Arg Arg Glu Ala Met Ile Glu Thr Leu Ala Asp Ala
      115          120          125

```

<210> 941  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

```

<400> 941
atcttctggt cggcgggtgat cacgctggtg accatcggcc tgctgtttgc cggcaacttc
60
gaagccatgc aaaccatggt cgtgctggcc ggctgcccgt tctcgggtggt gctgattttc
120
ttcatgttcg gtttgacaaa ggcgatgcgc caggacgtgg ccatggagca ggagcaggca
180
caattggttg aacgtgggtc cgtgggtttc agcagcgcgc tgaccgcgct ggacctgcaa
240
ccgagccagg gcaccgtgca acgctttatg gacaaacatg tgacgccggc gttggaacaa
300
gcggcgactg cgttgctgta tcaagggctg gaagtgcaga ccctgctt
348

```

<210> 942  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 942
Ile Phe Trp Ser Ala Val Ile Thr Leu Val Thr Ile Gly Leu Leu Phe
      1           5           10           15
Ala Gly Asn Phe Glu Ala Met Gln Thr Met Val Val Leu Ala Gly Leu
      20           25           30
Pro Phe Ser Val Val Leu Ile Phe Phe Met Phe Gly Leu His Lys Ala
      35           40           45
Met Arg Gln Asp Val Ala Met Glu Gln Glu Gln Ala Gln Leu Ala Glu
      50           55           60
Arg Gly Arg Arg Gly Phe Ser Glu Arg Leu Thr Ala Leu Asp Leu Gln
      65           70           75           80
Pro Ser Gln Gly Thr Val Gln Arg Phe Met Asp Lys His Val Thr Pro
      85           90           95
Ala Leu Glu Gln Ala Ala Thr Ala Leu Arg Asp Gln Gly Leu Glu Val

```

100  
Gln Thr Leu Leu  
115

105

110

<210> 943  
<211> 439  
<212> DNA  
<213> Homo sapiens

<400> 943  
ccatggcagg agcagagcag atagagcagg acctcgtctc cttctctttg cattttgtgc  
60  
ctcctctaata gcatcctggg ctctgtctaa cctgtgtgga aacaccgtct cttctctcct  
120  
ttgccctctt ctgtgatcac atcctcactt ctgagcctat ctgcccattc agtcaatccc  
180  
ccttggttct gggatgctat ttccctggcc gcctccctct aggagtgttt agaaccctca  
240  
ctgtgggcag aagggaggga agatggctga ggtacctgga aagggacgtg tggatccccg  
300  
ggcatggaag gaaggaggca ggagagctag aaaaagggaat gagatctaata gttccctaag  
360  
gaacctggct tagtgctggc ccttcacata ctgagacatg gaatccttac tactgttctc  
420  
tgaggaaaga ggctgttcc  
439

<210> 944  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 944  
Met Ala Gly Ala Glu Gln Ile Glu Gln Asp Leu Val Ser Phe Ser Leu  
1 5 10 15  
His Phe Val Pro Pro Leu Met His Pro Gly Leu Leu Thr Leu Trp  
20 25 30  
Glu Thr Pro Ser Leu Leu Ser Phe Ala Leu Phe Cys Asp His Ile Leu  
35 40 45  
Thr Ser Glu Pro Ile Cys Pro Ser Ser Gln Ser Pro Leu Val Leu Gly  
50 55 60  
Cys Tyr Phe Pro Gly Arg Leu Pro Leu Gly Val Phe Arg Thr Leu Thr  
65 70 75 80  
Val Gly Arg Arg Glu Gly Arg Trp Leu Arg Tyr Leu Glu Arg Asp Val  
85 90 95  
Trp Ile Pro Gly His Gly Arg Lys Glu Ala Gly Glu Leu Glu Lys Gly  
100 105 110  
Met Arg Ser Asn Val Pro  
115

<210> 945  
<211> 339  
<212> DNA  
<213> Homo sapiens



&lt;400&gt; 945

ngaattcgtg aagcggtcca tatttttttc cttttaataa tttcaattgc actttatgtc  
60  
gagatggtga tatatatata tactcacaca catatatatg tgtgtgtgtg tatatatgta  
120  
tatatatata gcgtgtacaa caaaacatgc actgtttact cagcaccgccg tgtttgtctc  
180  
agcaatagct tttctaaaga actgctacta ttgaaatgg agggggaggg gggctctgga  
240  
cagagtattg tgcaagtga aagtctctgg atggggctat gtatatacta ccagccaatt  
300  
tgggtgcaaa ttggatttga aggcctgcct ctgtccacn  
339

&lt;210&gt; 946

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 946

Xaa	Ile	Arg	Glu	Ala	Phe	His	Ile	Phe	Phe	Leu	Leu	Ile	Ile	Ser	Ile
1				5				10					15		
Ala	Leu	Tyr	Val	Glu	Met	Val	Ile	Tyr	Ile	Tyr	Thr	His	Thr	His	Ile
			20					25				30			
Tyr	Val	Cys	Val	Cys	Ile	Tyr	Val	Tyr	Ile	Tyr	Ser	Val	Tyr	Asn	Lys
		35					40				45				
Thr	Cys	Thr	Val	Tyr	Ser	Ala	Pro	Arg	Val	Cys	Leu	Ser	Asn	Ser	Phe
		50				55				60					
Ser	Lys	Glu	Leu	Leu	Leu	Phe	Glu	Met	Glu	Gly	Glu	Gly	Gly	Pro	Gly
65				70					75					80	
Gln	Ser	Ile	Val	Gln	Val	Glu	Ser	Leu	Trp	Met	Gly	Leu	Cys	Ile	Ser
			85					90					95		
Tyr	Gln	Pro	Ile	Trp	Val	Gln	Ile	Gly	Phe	Glu	Gly	Leu	Pro	Leu	Ser
			100					105					110		

Thr

&lt;210&gt; 947

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 947

tctagatctg ttctcagggg agctgagatg gagatgagtg ggcagcaggt ttatggagtg  
60  
ctcgtggcat cacacctgtg cacgggggtg ggggaaggagt ggacaggagt ggacaagtca  
120  
agtagtgctg ccggctcaag cgatgcctca gcctttctgc tgtgtgcgaa gctttgcaga  
180  
ggagatgatg cttcaaagtt gtcctgttg gggatgagca gccaggcctt tataactgg  
240  
gacagtcagt catggatacg tggatactct ggaaaccctc atccctggag gtctgagccc  
300

ctggatacca tgccttctt aggtggagt tgcctcctt gtccatttac cataaaaatt  
 360  
 ggacaagaga ataccaggac acacctgagt ttctcatcgt atgctaaacc tgttcttcca  
 420  
 cgtacatccc caatgtgtac agccctactt tttctgctg atcaagttca attacttctg  
 480  
 ctaagatggt gactattctt gcctgctggt ccttggatgc aaggacccca atgttcaggc  
 540  
 agcctttggt gccttctagc atacgaatca gagcattatc tttaggtgtg gaataagctg  
 600  
 ccccaaaacc tgttgaagcc agccaggcac tgtgctcct tcacgcgt  
 648

<210> 948

<211> 154

<212> PRT

<213> Homo sapiens

<400> 948

Met	Glu	Met	Ser	Gly	Gln	Gln	Val	Tyr	Gly	Val	Leu	Val	Ala	Ser	His
1				5					10					15	
Leu	Cys	Thr	Gly	Val	Gly	Lys	Glu	Trp	Thr	Gly	Val	Asp	Lys	Ser	Ser
			20					25					30		
Ser	Ala	Ala	Gly	Ser	Ser	Asp	Ala	Ser	Ala	Phe	Leu	Leu	Cys	Ala	Lys
			35					40					45		
Leu	Cys	Arg	Gly	Asp	Asp	Ala	Ser	Lys	Leu	Ser	Leu	Leu	Gly	Met	Ser
	50					55					60				
Ser	Gln	Ala	Phe	Ile	His	Trp	Asp	Ser	Gln	Ser	Trp	Ile	Arg	Gly	Tyr
65					70					75				80	
Ser	Gly	Asn	Pro	His	Pro	Trp	Arg	Ser	Glu	Pro	Leu	Asp	Thr	Met	Pro
				85					90					95	
Phe	Leu	Gly	Trp	Ser	Cys	Cys	Pro	Cys	Pro	Phe	Thr	Ile	Lys	Ile	Gly
			100					105					110		
Gln	Glu	Asn	Thr	Arg	Thr	His	Leu	Ser	Phe	Ser	Ser	Tyr	Ala	Lys	Pro
		115					120					125			
Val	Leu	Pro	Arg	Thr	Ser	Pro	Met	Cys	Thr	Ala	Leu	Leu	Phe	Ser	Ala
	130						135					140			
Asp	Gln	Val	Gln	Leu	Leu	Leu	Leu	Arg	Trp						
145							150								

<210> 949

<211> 661

<212> DNA

<213> Homo sapiens

<400> 949

acgcgtactg gttggctcat tcaactgaaa tatgatgaca tttaaaggaa atgcaagaat  
 60  
 aagtaatgtg gaattttatc acagtgggtca agaaggcttc agggatagca cagatccaag  
 120  
 atatgtgtga acgtttctta acctaggaca gattcaagaa catggctcat cttatatctg  
 180  
 aggtgtgtgt tttcaccatg gcttctctcc agcaattggt gtatttgga cagatggatt  
 240

ggacatagat gacaacatca ttcactttac agtgggggaa ggcataagaa tatgggggaa  
 300  
 tgccaaccga gtccgagga atttgattgc actttcggtt tggccaggaa cctatcagaa  
 360  
 cagaaaagat ttaagttcaa ctctctggca tgcagcaatt gagataaata gagggaccaa  
 420  
 tacagtttta cagaataatg tagtggctgg atttgaaga gcaggatacc gcattgatgg  
 480  
 tgaaccttgc ccaggccagt ttaatcctgt ggaaaagtgg tttgacaatg aagcccatgg  
 540  
 aggtttatat gggatctata tgaaccaaga tggccttcct ggatgttctc ttatacaagg  
 600  
 atttaccatt tggacatgct gggattatgg aatttatattt cagaccacag agagtgtgca  
 660  
 c  
 661

<210> 950  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 950  
 Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe Tyr  
 1 5 10 15  
 His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr Ala  
 20 25 30  
 Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser Tyr  
 35 40 45  
 Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly Val  
 50 55 60  
 Phe Gly Thr Asp Gly Leu Asp Ile Asp Asp Asn Ile Ile His Phe Thr  
 65 70 75 80  
 Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg Gly  
 85 90 95  
 Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg Lys  
 100 105 110  
 Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg Gly  
 115 120 125  
 Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg Ala  
 130 135 140  
 Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro Val  
 145 150 155 160  
 Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile Tyr  
 165 170 175  
 Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe Thr  
 180 185 190  
 Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu Ser  
 195 200 205  
 Val His  
 210

<210> 951  
 <211> 2615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 951

nntccagccc ccaccatgcc gtggccctg ctgctgctgc tggcctgag tggggcccag  
60  
acaacccggc catgcttccc cgggtgcaa tgcgaggtgg agacctcg ccttttcgac  
120  
agcttcagcc tgactcgggt ggattgtagc ggctggggc ccacatcat gccggtgccc  
180  
atccctctgg acacagccca cttggacctg tcctccaacc ggctggagat ggtgaatgag  
240  
tcggtgttgg cggggccggg ctacacgacg ttggctggcc tggatctcag ccacaacctg  
300  
ctcaccagca tctacccac tgccttctcc cgccttcgct acctggagtc gcttgacctc  
360  
agccacaatg gcctgacagc cctgccagcc gagagcttca ccagctcacc cctgagcgac  
420  
gtgaacctta gccacaacca gctccgggag gtctcagtgt ctgccttcac gacgcacagt  
480  
cagggccggg cactacagt ggacctctcc cacaacctct caccgcctcg tgccccacc  
540  
cacgagggcc ggctgcctg cggccaccat tcagagcctg aacctggcct ggaaccggct  
600  
ccatgccgtg cccaacctcg agacttgccc ctgcgctacc tgagcctgga tgggaacctt  
660  
ctagctgtca ttggtccggg tgccttcgag gggctgggag gccttacaca cctgtctctg  
720  
gccagcctgc agaggtccc tgagctggcg ccagtggt tccgtgagct accgggcctg  
780  
caggtcctgg acctgtcggg caaccccaag cttaactggg caggagctga ggtgttttca  
840  
ggcctgagct cctgcagga gctggacctt tcgggcacca acctggtgcc cctgcctgag  
900  
gcgctgctcc tccacctccc ggcactgcag agcgtcagcg tgggccagga tgtgcggtgc  
960  
cggcgcttg tgcgggaggg cactacccc cggaggcctg gctccagccc caagtgggc  
1020  
ctgcactgc tagacaccg ggaatctgct gccaggggcc ccacctctt gtgacaaatg  
1080  
gtgtggccca gggccacata acagactgct gtctgggct gcctcaggtc ccgagtaact  
1140  
tatgttcaat gtccaacac cagtggggag ccgcaggcc tatgtggcag cgtcaccaca  
1200  
ggagtgtggt gcctaggaga ggctttggac ctgggagcca cacctaggag caaagtctca  
1260  
cccctttgtc tacgttgctt ccccaacca tgagcagagg gacttcgatg ccaaaccaga  
1320  
ctcgggtccc ctctgcttc ccttccccac ttatcccca agtgccttcc ctcatgcctg  
1380  
ggccggcctg acccgcaatg ggcagagggg ggggtggacc ccctgctgca gggcagagtt  
1440  
caggtccact gggctgagtg tcccctggg cccatggccc agtcactcag gggcgagttt  
1500

cttttctaac atagcccttt ctttgccatg aggccatgag gcccgcttca tctttttcta  
 1560  
 tttccctaga accttaatgg tagaaggaat tgcaaagaat caagtccacc cttctcatgt  
 1620  
 gacagatggg gaaactgagg ccttgagaag gaaaaaggct aatctaagtt cctgcgggca  
 1680  
 gtggcatgac tggagcacag cctcctgcct ccagccccgg acccaatgca ctttcttgtc  
 1740  
 tcctctaata agccccacce tccccgctg ggctccccct gctgcccttg cctgttcccc  
 1800  
 attagcacag gagtagcagc agtaggacag gcaagagcct cacaagtggg actctggggc  
 1860  
 tctgaccage tgtgcccgcg gggctaagtc actctgccct tcggagcctc tggaagetta  
 1920  
 gggcacattg gtccagcct agccagtttc tcaccctggg ttgggggtccc ccagcatcca  
 1980  
 gactggaaac ctaccattt tcccctgagc atcctctaga tgctgcccc aggagttgct  
 2040  
 gcagttctgg agcctcatct ggctgggac tccaaggggc ctctgggatt cagtccccac  
 2100  
 tggccctgag caagacagcc cttcttacct tcccaggaat gccgtgaaag gagacaaggt  
 2160  
 ctgcccagacc catgtctatg ctctaccccc agggtagcat ctgagcttcc gaacctggg  
 2220  
 ctgtttcctt agtcttcatt ttataaaagt tgttgccctt ttaacggagt gtcactttca  
 2280  
 accggcctcc cctaccctg ctggccgggg atggagacat gtcatttgta aaagcagaaa  
 2340  
 aaggttgcat ttgttcactt ttgtaatat gtctggggc tgtgttgggg tgttggggga  
 2400  
 agctgggcat cagtggccac atgggcatca ggggctggcc ccacagagac ccacagggc  
 2460  
 agtgagctct gtcttcccc acctgcctag cccatcatct atctaaccgg tcttgattt  
 2520  
 aataaacact ataaaatgaa gactaaggaa acagcccagg gttegggaagc tgagatgcta  
 2580  
 ccctgggggt agagcataga catgggtcgg gcaga  
 2615

&lt;210&gt; 952

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 952

Xaa Pro Ala Pro Thr Met Pro Trp Pro Leu Leu Leu Leu Ala Val  
 1 5 10 15  
 Ser Gly Ala Gln Thr Thr Arg Pro Cys Phe Pro Gly Cys Gln Cys Glu  
 20 25 30  
 Val Glu Thr Phe Gly Leu Phe Asp Ser Phe Ser Leu Thr Arg Val Asp  
 35 40 45  
 Cys Ser Gly Leu Gly Pro His Ile Met Pro Val Pro Ile Pro Leu Asp  
 50 55 60  
 Thr Ala His Leu Asp Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu

65					70					75				80	
Ser	Val	Leu	Ala	Gly	Pro	Gly	Tyr	Thr	Thr	Leu	Ala	Gly	Leu	Asp	Leu
				85					90					95	
Ser	His	Asn	Leu	Leu	Thr	Ser	Ile	Ser	Pro	Thr	Ala	Phe	Ser	Arg	Leu
		100						105					110		
Arg	Tyr	Leu	Glu	Ser	Leu	Asp	Leu	Ser	His	Asn	Gly	Leu	Thr	Ala	Leu
		115					120					125			
Pro	Ala	Glu	Ser	Phe	Thr	Ser	Ser	Pro	Leu	Ser	Asp	Val	Asn	Leu	Ser
		130				135					140				
His	Asn	Gln	Leu	Arg	Glu	Val	Ser	Val	Ser	Ala	Phe	Thr	Thr	His	Ser
145				150						155				160	
Gln	Gly	Arg	Ala	Leu	His	Val	Asp	Leu	Ser	His	Asn	Leu	Ser	Pro	Pro
				165				170					175		
Arg	Ala	Pro	Pro	His	Glu	Gly	Arg	Pro	Ala	Cys	Ala	His	His	Ser	Glu
			180					185					190		
Pro	Glu	Pro	Gly	Leu	Glu	Pro	Ala	Pro	Cys	Arg	Ala	Gln	Pro	Arg	Asp
		195				200						205			
Leu	Pro	Leu	Arg	Tyr	Leu	Ser	Leu	Asp	Gly	Asn	Pro	Leu	Ala	Val	Ile
	210					215					220				
Gly	Pro	Gly	Ala	Phe	Ala	Gly	Leu	Gly	Gly	Leu	Thr	His	Leu	Ser	Leu
225				230						235				240	
Ala	Ser	Leu	Gln	Arg	Leu	Pro	Glu	Leu	Ala	Pro	Ser	Gly	Phe	Arg	Glu
				245					250					255	
Leu	Pro	Gly	Leu	Gln	Val	Leu	Asp	Leu	Ser	Gly	Asn	Pro	Lys	Leu	Asn
		260						265					270		
Trp	Ala	Gly	Ala	Glu	Val	Phe	Ser	Gly	Leu	Ser	Ser	Leu	Gln	Glu	Leu
		275						280					285		
Asp	Leu	Ser	Gly	Thr	Asn	Leu	Val	Pro	Leu	Pro	Glu	Ala	Leu	Leu	Leu
	290					295					300				
His	Leu	Pro	Ala	Leu	Gln	Ser	Val	Ser	Val	Gly	Gln	Asp	Val	Arg	Cys
305				310						315				320	
Arg	Arg	Leu	Val	Arg	Glu	Gly	Thr	Tyr	Pro	Arg	Arg	Pro	Gly	Ser	Ser
				325					330					335	
Pro	Lys	Val	Ala	Leu	His	Cys	Val	Asp	Thr	Arg	Glu	Ser	Ala	Ala	Arg
		340						345					350		
Gly	Pro	Thr	Ile	Leu											
		355													

&lt;210&gt; 953

&lt;211&gt; 347

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 953

acgcgtgaag ccattccctgt gcgcaggcca gtctcgcgagg ggtcaccacg gagcgtgtgc

60

accacacttt cccatccct tgatccatca ttgggcgttg aggttttccc atgtcttgac

120

tggtgtacct ggcggctctg cggagtaacc gctgcggaca cacagtagga cgggagggag

180

aagccattgc gtttaccct ttcattgccc ttcctttccc ctccaagtg agctctttga

240

ggtgagtcac ggagggcagt gtccctctgc atcctgtctg gggtgtgcaa atatggccaa

300

gtgggctcca tcggggcagc ggggtggggtg ggggggtgtct gtcagag  
347

<210> 954

<211> 103

<212> PRT

<213> Homo sapiens

<400> 954

Met	Glu	Pro	Thr	Trp	Pro	Tyr	Leu	Thr	Thr	Pro	Asp	Arg	Met	Gln	Arg
1				5					10					15	
Asp	Thr	Ala	Leu	His	Asp	Ser	Pro	Gln	Arg	Ala	His	Leu	Glu	Gly	Glu
		20						25				30			
Arg	Lys	Gly	His	Glu	Arg	Val	Lys	Arg	Asn	Gly	Phe	Ser	Leu	Pro	Ser
		35					40				45				
Tyr	Cys	Val	Ser	Ala	Ala	Val	Thr	Pro	Gln	Ser	Arg	Gln	Val	Gln	Gln
	50					55				60					
Ser	Arg	His	Gly	Lys	Thr	Ser	Thr	Pro	Asn	Asp	Gly	Ser	Arg	Asp	Gly
65				70					75					80	
Glu	Ser	Val	Val	His	Thr	Leu	Arg	Gly	Asp	Pro	Arg	Glu	Thr	Gly	Leu
			85					90						95	
Arg	Thr	Gly	Met	Ala	Ser	Arg									
			100												

<210> 955

<211> 634

<212> DNA

<213> Homo sapiens

<400> 955

acgcgtgaag ggctctgcag gtgagcggct ctgcaggtga agggttctgc aggtgagcgg  
60  
ctctgcaggt gaatggttct gcaggtgaag ggctctgcag gtgaacgggt ctgcaggtga  
120  
agggctctgc aggtgaaagg ttctgcaggt gagcggctct gcaggtgagc ggctctgcat  
180  
gtgagtgcct ctgtgactgg ctcgcaagca gcatttgtgc acacttgact ggccacaaca  
240  
gaatgttctt ctctgttctc agcactgagg aggaagctcc tgccaaagcg accacagcca  
300  
ggcaccgcct ccattggagac attgctctct ccagactcca ttcagactca ggaaacctga  
360  
gctcctggaa tgcaggtcga ggcagctccc acacaaaagc tatctactct ggcagttatc  
420  
agaggcctcc gttgcacaaa tcacacacct actgtgcttg acgtggctgg gcctccagca  
480  
ggacccgctc ctgagaacac acgggtgcta gtccaagttc acagcacggc tcaagtcact  
540  
cccacaaacc tctctataca aacacacaaa gctctgggag gctaccctgc atccaagagt  
600  
caccatctca cacctggaac aagggttacg gccg  
634

<210> 956

<211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 956  
 Met Glu Ser Gly Glu Ser Asn Val Ser Met Glu Arg Val Pro Gly Cys  
 1 5 10 15  
 Gly Arg Leu Gly Arg Ser Phe Leu Leu Ser Ala Asp Asn Arg Glu Glu  
 20 25 30  
 His Ser Val Val Ala Ser Gln Val Cys Thr Asn Ala Ala Cys Glu Pro  
 35 40 45  
 Val Thr Glu Ala Leu Thr Cys Arg Ala Ala His Leu Gln Ser Arg Ser  
 50 55 60  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Leu His Leu Gln Asn Arg Ser  
 65 70 75 80  
 Pro Ala Glu Pro Phe Thr Cys Arg Thr Ile His Leu Gln Ser Arg Ser  
 85 90 95  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Ala His Leu Gln Ser Pro Ser  
 100 105 110  
 Arg

<210> 957  
 <211> 823  
 <212> DNA  
 <213> Homo sapiens

<400> 957  
 acgcgtggcc tgaccaccgt gtcccgccca tctacaggtg cccgagatcg tgagcgtcct  
 60  
 gcgctccaag cttcaggagg cccagggaga gcacgtcctg ccggccacc agcacagcgt  
 120  
 gtacctcctg gccaccagc actgcgcagc cgtggtgtcc agcctcctgg gcagccctt  
 180  
 gcccttgga aggtaccag ctcagactcc aggcctagg gtcctcctgg aatgatgctc  
 240  
 cccctggaat gatgtcccc gagccctcca cccggctctg caccceagact ttctgcatga  
 300  
 gtccccatgg ctgtaggcca cgtgggacag aaagtacat ggagccaggc cccagtctct  
 360  
 caggtacca cggggacctc tctctccag gcgttttggg atcctcactg gctccggtgg  
 420  
 gccctgcaca gacccccac agggaagctg ctgtttctgc ctctctctaa ggtcccaaaa  
 480  
 ctgcctggct gctctgttg cccaggctc cagcacacac tggaggctgc cctcaccct  
 540  
 gtgtcttggt tccggetact ccaagccttg tctctgcag ggcctccact gctgcctgtg  
 600  
 agcagacccc tgggaactgc ctgatctgag cccctcagg agcccaagga caacctgtgc  
 660  
 tgtaccatac atcactatgt ctcccaagc tcacacctcc cagctcccag caaagggcag  
 720  
 ggcggtgcta ccaccacca gccactggg gtccctctc ctcgcccagg cctccggagc  
 780



atgggtctgc tggcccttcc tttctttgcc tcttagtctg gaa  
823

<210> 958  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 958  
Met Ala Val Gly His Val Gly Gln Lys Val Thr Trp Ser Gln Ala Pro  
1 5 10 15  
Val Ser Gln Val Pro Thr Gly Thr Ser Pro Leu Gln Ala Phe Trp Asp  
20 25 30  
Pro His Trp Leu Arg Trp Ala Leu His Ser Thr Pro Thr Gly Lys Leu  
35 40 45  
Leu Phe Leu Pro Ser Ser Lys Val Pro Lys Leu Pro Gly Cys Ser Val  
50 55 60  
Gly Pro Arg Leu Gln His Thr Leu Glu Ala Ala Pro His Pro Val Ser  
65 70 75 80  
Trp Phe Arg Leu Leu Gln Ala Leu Ser Ser Ala Gly His Pro Leu Leu  
85 90 95  
Pro Val Ser Arg Pro Leu Gly Thr Ala  
100 105

<210> 959  
<211> 586  
<212> DNA  
<213> Homo sapiens

<400> 959  
ngtcatgact gcatggccaa gcatgactcc aacaccatca ttaagtttgc cgacgacaca  
60  
acagtggtag gcctgatcac cgacaacgat gaggcagcct atagggagga ggtcagagac  
120  
ctggcagtgt ggtgccagga taacaacctc tccctcaacy tgatcaagac cacgaagatg  
180  
atcgtggact acaggaaaag gagggctgag cagcctccca ttctcattga tggggctgta  
240  
tgggagccag ttgagagctt caagtccctt ggtgtccaca tcaccatcga actatcatgg  
300  
tccaaacaca ccaagacagt agtgaagagg gtgcgacaat gcctattcca cctcggtaga  
360  
caaaaaagat ttggaatgga tcctcagacc ctcaaaaagt ttgacatcta caccatcgag  
420  
agcatcatga ctggttgcac caccgctgg tatggcaact gctcggcctc cgaccgcaag  
480  
gcactacaga gggtagtgcg tacggcccag tacatcactg gggctaagct tcctgccatc  
540  
caggacctct ataccaggcg gtgtcagcgg aagaccctga caattg  
586

<210> 960  
<211> 195  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 960

Xaa His Asp Cys Met Ala Lys His Asp Ser Asn Thr Ile Ile Lys Phe  
 1 5 10 15  
 Ala Asp Asp Thr Thr Val Val Gly Leu Ile Thr Asp Asn Asp Glu Ala  
 20 25 30  
 Ala Tyr Arg Glu Glu Val Arg Asp Leu Ala Val Trp Cys Gln Asp Asn  
 35 40 45  
 Asn Leu Ser Leu Asn Val Ile Lys Thr Thr Lys Met Ile Val Asp Tyr  
 50 55 60  
 Arg Lys Arg Arg Val Glu His Ala Pro Ile Leu Ile Asp Gly Ala Val  
 65 70 75 80  
 Trp Glu Pro Val Glu Ser Phe Lys Phe Leu Gly Val His Ile Thr Ile  
 85 90 95  
 Glu Leu Ser Trp Ser Lys His Thr Lys Thr Val Val Lys Arg Val Arg  
 100 105 110  
 Gln Cys Leu Phe His Leu Gly Arg Gln Lys Arg Phe Gly Met Asp Pro  
 115 120 125  
 Gln Thr Leu Lys Lys Phe Asp Ile Tyr Thr Ile Glu Ser Ile Met Thr  
 130 135 140  
 Gly Cys Ile Thr Ala Trp Tyr Gly Asn Cys Ser Ala Ser Asp Arg Lys  
 145 150 155 160  
 Ala Leu Gln Arg Val Val Arg Thr Ala Gln Tyr Ile Thr Gly Ala Lys  
 165 170 175  
 Leu Pro Ala Ile Gln Asp Leu Tyr Thr Arg Arg Cys Gln Arg Lys Thr  
 180 185 190  
 Leu Thr Ile  
 195

&lt;210&gt; 961

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 961

acgcgttgtc gtctctccgt agaccattca gtttggcaaa acttccactg gagtctgtgc  
 60  
 atgactggat ggtctctttg acagccctgt caaggaatac caacagaata ttgattctcc  
 120  
 taaactgtat agtaacctgc taaccagtcg gaaagagcta ccacccaatg gagatactaa  
 180  
 atccatggta atggaccatc gagggcaacc tccagagttg gctgctcttc ccactectga  
 240  
 gtctacaccc gtgcttcacc agaagaccct gcaggccatg aagagccact cagaaaaggc  
 300  
 ccattggccat ggagcttcaa ggaaagaaac ccctcagttt ttcccgctca gtccgccacc  
 360  
 tcattcccca ataagtcatg ggcatacccc cagtgcattt gttcttccaa atgctaccca  
 420  
 tgactacaac acgtctttct caaactccaa tgctcacaaa gctgaaaaga agcttcaaaa  
 480  
 cattgatcac cccttcacgc gt  
 502

<210> 962  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 962  
 Met Val Met Asp His Arg Gly Gln Pro Pro Glu Leu Ala Ala Leu Pro  
 1 5 10 15  
 Thr Pro Glu Ser Thr Pro Val Leu His Gln Lys Thr Leu Gln Ala Met  
 20 25 30  
 Lys Ser His Ser Glu Lys Ala His Gly His Gly Ala Ser Arg Lys Glu  
 35 40 45  
 Thr Pro Gln Phe Phe Pro Ser Ser Pro Pro Pro His Ser Pro Ile Ser  
 50 55 60  
 His Gly His Ile Pro Ser Ala Ile Val Leu Pro Asn Ala Thr His Asp  
 65 70 75 80  
 Tyr Asn Thr Ser Phe Ser Asn Ser Asn Ala His Lys Ala Glu Lys Lys  
 85 90 95  
 Leu Gln Asn Ile Asp His Pro Phe Thr Arg  
 100 105

<210> 963  
 <211> 1298  
 <212> DNA  
 <213> Homo sapiens

<400> 963  
 nntcgcgagc acactccagc ctctggggag caggccacag aacgcagggt gaaacccaag  
 60  
 gcgctctaga ggagatgaat tatggatccg cctcccga atcctggctc ggccctcccc  
 120  
 acgccaccca gggccagtcg ggtctgtcga cagcccagag aggcgcgctg tccagccgcg  
 180  
 ggcaagagac agagcaggtc cctgtgtatc caagtcctg agcccgtag accggcccca  
 240  
 ggccctgtag agagccagca gccaccatgg cgaaggagga agatgaggag aagaaagcca  
 300  
 agaaagggaa gaaggggaag aaggcaccgg acccgagaa gcccaaacgg agcctgaagg  
 360  
 ggacgtcgcg ggtgttcatt ggcttccgcg accgaacacc caagatctac aagaagggcc  
 420  
 agttccgcag cgcctcggcc ttcttctggg gcctccacac cgccccccac aagaccaagc  
 480  
 gcacgaggaa ggcccgacc gtgctcgggt acacgtcaga gcttatgacg cacatgcgca  
 540  
 tgggcaagaa gaagcgggag atgaaggga agaagccgtc cttcatggtg atccgcttcc  
 600  
 caggccgcg tggctacggc cgcctgcggc cgcgcgcccg gtcactcagc aaagcgtcca  
 660  
 cggccatcaa ctggctcaca aaaaagttcc tctcaagaa ggccgaggag tcgggcagcg  
 720  
 aacaggccac agtggacgcc tggctgcagc gctcgagctc ccgcatgggc tcccgaac  
 780

tccccctccc gtcgggtgcc gagatcctgc ggccctggggg ccggctccgg aggttcccc  
 840  
 gcagccgcag catctacgcg tcaggcgagc cctggggtt cctgcccttc gaggacgagg  
 900  
 cccattcca tcactegggc tcccgaagt cgctgtacgg gcttgagggc ttccaggacc  
 960  
 tgggcgagta ttatgactat caccgcgacg gcgacgacta ctacgaccgg cagtcaactcc  
 1020  
 accgctacga ggagcaggaa ccctacctgg cgggcctcgg cccctacagc ccggcctggc  
 1080  
 caccctacgg cgaccactac tacgggtacc cgcccgagga tccctacgac tactaccacc  
 1140  
 ccgactatta cgggtggcccc gttgatccgg ggtacaccta cggtacggc tacgacgatt  
 1200  
 acgaaccccc atatgcgccc ccgtcggggg actcgtctcc ttacagctac cagatgggt  
 1260  
 acgagggcga ggcgaccct tatggctact acctggat  
 1298

&lt;210&gt; 964

&lt;211&gt; 235

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 964

Ser	Ala	Ser	Gln	Ala	Ala	Val	Ala	Thr	Ala	Ala	Cys	Gly	Arg	Ala	Pro
1			5					10					15		
Gly	His	Ser	Ala	Lys	Arg	Pro	Arg	Pro	Ser	Thr	Gly	Ser	Gln	Lys	Ser
		20					25					30			
Ser	Ser	Ser	Arg	Arg	Pro	Arg	Ser	Arg	Ala	Ala	Asn	Arg	Pro	Gln	Trp
		35				40					45				
Thr	Pro	Gly	Cys	Ser	Ala	Arg	Ala	Pro	Ala	Trp	Ala	Pro	Ala	Asn	Ser
	50					55				60					
Pro	Ser	Arg	Arg	Val	Pro	Arg	Ser	Cys	Gly	Leu	Gly	Ala	Gly	Ser	Gly
65				70				75					80		
Gly	Ser	Pro	Ala	Ala	Ala	Ala	Ser	Thr	Arg	Gln	Ala	Ser	Pro	Trp	Ala
			85					90					95		
Ser	Cys	Pro	Ser	Arg	Thr	Arg	Pro	His	Ser	Ile	Thr	Arg	Ala	Pro	Ala
		100					105					110			
Ser	Arg	Cys	Thr	Gly	Leu	Arg	Ala	Ser	Arg	Thr	Trp	Ala	Ser	Ile	Met
		115				120					125				
Thr	Ile	Thr	Ala	Thr	Ala	Thr	Thr	Thr	Thr	Thr	Gly	Ser	His	Ser	Thr
	130					135					140				
Ala	Thr	Arg	Ser	Arg	Asn	Pro	Thr	Trp	Arg	Ala	Ser	Ala	Pro	Thr	Ala
145					150				155				160		
Arg	Pro	Gly	His	Pro	Thr	Ala	Thr	Thr	Thr	Gly	Thr	Arg	Pro	Arg	
			165					170					175		
Ile	Pro	Thr	Thr	Thr	Thr	Pro	Thr	Ile	Thr	Val	Ala	Pro	Leu	Ile	
		180					185					190			
Arg	Gly	Thr	Pro	Thr	Ala	Thr	Ala	Thr	Thr	Ile	Thr	Asn	Pro	His	Met
	195					200						205			
Arg	Pro	Arg	Arg	Gly	Thr	Arg	Leu	Leu	Thr	Ala	Thr	Thr	Met	Gly	Thr
	210					215					220				
Arg	Ala	Arg	Arg	Thr	Leu	Met	Ala	Thr	Thr	Trp					

225

230

235

&lt;210&gt; 965

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 965

nnngtgacca ttatgggtgg tgcccgtacc cgtgaagtgg aaggcgttga ttttgttggc  
60  
cgggtcagcg atgccgaaaa ggetgaaatc ctgggccgcg ccgatgtgta tgctgcccc  
120  
aataccggcg gtgagagctt tggcattgtc ttggtggaag ccatggcggc aggcgcagcc  
180  
gttgttgctt cagacttgga ggccttccgc gcagtgtgca acgccgattc cgatgatgtt  
240  
gccggcgcg tatatcgcaa tgaggatagt aatgaccttg ctctgttact caacgaggtg  
300  
ctcgaggatc ctgagtatcg tgcccgetta gtgcac  
336

&lt;210&gt; 966

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 966

Xaa	Val	Thr	Ile	Met	Gly	Gly	Ala	Arg	Thr	Arg	Glu	Val	Glu	Gly	Val
1				5					10				15		
Asp	Phe	Val	Gly	Arg	Val	Ser	Asp	Ala	Glu	Lys	Ala	Glu	Ile	Leu	Gly
		20					25					30			
Arg	Ala	Asp	Val	Tyr	Val	Ala	Pro	Asn	Thr	Gly	Gly	Glu	Ser	Phe	Gly
		35				40					45				
Ile	Val	Leu	Val	Glu	Ala	Met	Ala	Ala	Gly	Ala	Ala	Val	Val	Ala	Ser
	50				55				60						
Asp	Leu	Glu	Ala	Phe	Arg	Ala	Val	Cys	Asn	Ala	Asp	Ser	Asp	Asp	Val
65			70				75				80				
Ala	Gly	Ala	Leu	Tyr	Arg	Asn	Glu	Asp	Ser	Asn	Asp	Leu	Ala	Arg	Val
		85					90				95				
Leu	Asn	Glu	Val	Leu	Glu	Asp	Pro	Glu	Tyr	Arg	Ala	Arg	Leu	Val	His
		100					105					110			

&lt;210&gt; 967

&lt;211&gt; 393

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 967

ncaaatggca attcatagcc cgccagatcg gacacggagc tgggtgtatc cacggattcg  
60  
ggcgcggagg cgtcgggctc aagctccgct tcggcaccgg tcggcactga ggaatctccg  
120  
tcggcctccg ctccggccgc agcctgggct gcgccagact ctgcgggagg caccttctcc  
180

cgggttcgcc agccaaatgg cgttgcaggc tccagcatcc agtccggtgc cttcggcacc  
 240  
 cccgcactgc gcagagaggc cgccagaaac gatggcaccg gcggcgcggg aggtgataca  
 300  
 ggcgcttcgg ccggagcgct cacggactcc ggcactacag gtgcagcttg cgcttctcgc  
 360  
 ggcggagcaa cagggtcact tcgaggcggg gat  
 393

<210> 968

<211> 125

<212> PRT

<213> Homo sapiens

<400> 968

Pro	Ala	Arg	Ser	Asp	Thr	Glu	Leu	Val	Val	Ser	Thr	Asp	Ser	Gly	Ala
1				5					10					15	
Glu	Ala	Ser	Gly	Ser	Ser	Ser	Ala	Ser	Ala	Pro	Val	Gly	Thr	Glu	Glu
		20						25				30			
Ser	Pro	Ser	Ala	Ser	Ala	Ser	Ala	Ala	Ala	Trp	Ala	Ala	Pro	Asp	Ser
		35					40					45			
Ala	Gly	Gly	Thr	Phe	Ser	Arg	Val	Arg	Gln	Pro	Asn	Gly	Val	Ala	Gly
	50					55					60				
Ser	Ser	Ile	Gln	Ser	Gly	Ala	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Glu
65				70					75					80	
Ala	Ala	Arg	Asn	Asp	Gly	Thr	Gly	Gly	Ala	Gly	Gly	Asp	Thr	Gly	Ala
			85					90						95	
Ser	Ala	Gly	Ala	Leu	Thr	Asp	Ser	Gly	Thr	Thr	Gly	Ala	Ala	Cys	Ala
		100						105					110		
Ser	Cys	Gly	Gly	Ala	Thr	Gly	Ser	Leu	Arg	Gly	Gly	Asp			
		115						120				125			

<210> 969

<211> 880

<212> DNA

<213> Homo sapiens

<400> 969

caattgtcat gcaggacacc aaagatgaac acaggcttca cagtggcaaa ctctgtctga  
 60  
 ttatccttac atgtattgca gaggatcaat atgaccatgc atttttgcac gatgatcaac  
 120  
 atgaatttc gagtaaacctt acatagaatg cctatgagac acaggaagaa ggcagcagac  
 180  
 aagaatctta ccctgccgtc tttagtatgt gaagtactgg acctgatggt agagtttatt  
 240  
 gtaacacaca tgatgaagga gtttctatg gatctctata tacgctgcat ccaggtagta  
 300  
 cacaaactgc tctgctacca gaagaagtgt cgggtacgcc tgcattacac ctggcgggag  
 360  
 ctctggtcag ccttgataaa tttgctgaag ttccttatgt caaatgagac tgtacttttg  
 420  
 gccaaacaca acatttttac attagccctt atgattgtga acctatttaa tatgtttatc  
 480

acatatggcg acacatttct gccaaccccc agcagctatg atgaacttta ctatgagatt  
 540  
 atccgcatgc accagagctt tgacaacctc tactccatgg tctgaggct ttctaccaat  
 600  
 gcaggccagt ggaaggaagc agctagcaag gtgacccatg cattgggttaa tatcagagcc  
 660  
 atcatcaacc actttaaccc caaaattgag tcctacgctg ctgtgaatca catatcccaa  
 720  
 ctgtcagagg agcaggtgct ggaggtggtg agagccaact atgacacgct cacgctgaag  
 780  
 ctgcaggatg gcctggacca gtatgagcgc tactcagagc agcacaagga agctgccttc  
 840  
 ttcaaagagc tggttcgatc cattagcacc aacgtccgga  
 880

<210> 970

<211> 263

<212> PRT

<213> Homo sapiens

<400> 970

Met	Thr	Met	His	Phe	Cys	Met	Met	Ile	Asn	Met	Asn	Phe	Arg	Val	Asn	1	5	10	15
Leu	His	Arg	Met	Pro	Met	Arg	His	Arg	Lys	Lys	Ala	Ala	Asp	Lys	Asn	20	25	30	
Leu	Thr	Leu	Pro	Ser	Leu	Val	Cys	Glu	Val	Leu	Asp	Leu	Met	Val	Glu	35	40	45	
Phe	Ile	Val	Thr	His	Met	Met	Lys	Glu	Phe	Pro	Met	Asp	Leu	Tyr	Ile	50	55	60	
Arg	Cys	Ile	Gln	Val	Val	His	Lys	Leu	Leu	Cys	Tyr	Gln	Lys	Lys	Cys	65	70	75	80
Arg	Val	Arg	Leu	His	Tyr	Thr	Trp	Arg	Glu	Leu	Trp	Ser	Ala	Leu	Ile	85	90	95	
Asn	Leu	Leu	Lys	Phe	Leu	Met	Ser	Asn	Glu	Thr	Val	Leu	Leu	Ala	Lys	100	105	110	
His	Asn	Ile	Phe	Thr	Leu	Ala	Leu	Met	Ile	Val	Asn	Leu	Phe	Asn	Met	115	120	125	
Phe	Ile	Thr	Tyr	Gly	Asp	Thr	Phe	Leu	Pro	Thr	Pro	Ser	Ser	Tyr	Asp	130	135	140	
Glu	Leu	Tyr	Tyr	Glu	Ile	Ile	Arg	Met	His	Gln	Ser	Phe	Asp	Asn	Leu	145	150	155	160
Tyr	Ser	Met	Val	Leu	Arg	Leu	Ser	Thr	Asn	Ala	Gly	Gln	Trp	Lys	Glu	165	170	175	
Ala	Ala	Ser	Lys	Val	Thr	His	Ala	Leu	Val	Asn	Ile	Arg	Ala	Ile	Ile	180	185	190	
Asn	His	Phe	Asn	Pro	Lys	Ile	Glu	Ser	Tyr	Ala	Ala	Val	Asn	His	Ile	195	200	205	
Ser	Gln	Leu	Ser	Glu	Glu	Gln	Val	Leu	Glu	Val	Val	Arg	Ala	Asn	Tyr	210	215	220	
Asp	Thr	Leu	Thr	Leu	Lys	Leu	Gln	Asp	Gly	Leu	Asp	Gln	Tyr	Glu	Arg	225	230	235	240
Tyr	Ser	Glu	Gln	His	Lys	Glu	Ala	Ala	Phe	Phe	Lys	Glu	Leu	Val	Arg	245	250	255	
Ser	Ile	Ser	Thr	Asn	Val	Arg													

260

<210> 971  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<400> 971  
 tcgcgaggcc tcactatgga gccttctgag gtgctcaacc ttattaaaga ctccggacta  
 60  
 cgcggtcgtg gtggtgcagg cttcccact ggggtgaaat ggtccttctg tccccaaac  
 120  
 aatcccaacc ccaaatacct ggttgtaaac ggagacgaat ccgaaccgg cacgtgcaag  
 180  
 gacatgccgc tcattatggc aagccgcac acgcttgctg aagtgctct tatctccgc  
 240  
 tacgcttctg gatccgagca ggctttcatc tacctccgtg gagaagttgt tcaggtagcc  
 300  
 cggcgccttg aagaaaaaaaa aaaaatgcga nnnnnnn  
 337

<210> 972  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 972  
 Ser Arg Gly Leu Thr Met Glu Pro Ser Glu Val Leu Asn Leu Ile Lys  
 1 5 10 15  
 Asp Ser Gly Leu Arg Gly Arg Gly Ala Gly Phe Pro Thr Gly Val  
 20 25 30  
 Lys Trp Ser Phe Val Pro Gln Asn Asn Pro Asn Pro Lys Tyr Leu Val  
 35 40 45  
 Val Asn Gly Asp Glu Ser Glu Pro Gly Thr Cys Lys Asp Met Pro Leu  
 50 55 60  
 Ile Met Ala Ser Pro His Thr Leu Val Glu Gly Ala Leu Ile Ser Arg  
 65 70 75 80  
 Tyr Ala Phe Gly Ser Glu Gln Ala Phe Ile Tyr Leu Arg Gly Glu Val  
 85 90 95  
 Val Gln Val Ala Arg Arg Leu Glu Glu Lys Lys Lys Met Arg Xaa Xaa  
 100 105 110

<210> 973  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 973  
 acgcgtgaag gggaaagggg gagtcgtctc cttggttcct aagtgcgcc tctccaggtt  
 60  
 ccagcagggc ggcacagcca aggaaatggc atggtcctgc tgcattggtc tcagtgggtt  
 120  
 ccgggacctt ctgtatagga atcacttagg aaccagtcag accatcagat tctcaggacc  
 180



cactggatca actgagtcag gaactcaggg ttttcaacac atcctccggg gggattccag  
 240  
 tggctgtgta actttgagga ccactggcaa agtggctctg gggtcagaga tccgagttca  
 300  
 tattctgggt ctgcctctga ctgactgcaa cggtagggcaa gtcacttgcc gtgcccagcc  
 360

<210> 974  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 974  
 Met Ala Trp Ser Cys Cys Met Val Leu Ser Gly Val Arg Asp Leu Leu  
 1 5 10 15  
 Tyr Arg His His Leu Gly Thr Ser Gln Thr Ile Arg Phe Ser Gly Pro  
 20 25 30  
 Thr Gly Ser Thr Glu Ser Gly Thr Gln Gly Phe Gln His Ile Leu Arg  
 35 40 45  
 Gly Asp Ser Ser Gly Cys Val Thr Leu Arg Thr Thr Gly Lys Val Ala  
 50 55 60  
 Leu Gly Ser Glu Ile Arg Val His Ile Leu Gly Leu Pro Leu Thr Asp  
 65 70 75 80  
 Cys Asn Gly Gly Gln Val Thr Cys Arg Ala Gln  
 85 90

<210> 975  
 <211> 2604  
 <212> DNA  
 <213> Homo sapiens

<400> 975  
 gcagcctctc tgagctggag cgtctgaagc tgcaagagac tgcttaccac gaactcgtgg  
 60  
 ccagacattt cctctccgaa ttcaaacctg acagagctct gcctattgac cgtccgaaca  
 120  
 ccttgataa gtggtttctg attttgagag gacagcagag ggctgtatca cacaagacat  
 180  
 ttggcattag cctggaagag gtcttggtga acgagtttac ccgccgcaag catcttgaac  
 240  
 tgaccagcca cgatgcaggt tgaagaagcc accggtcagg ctgcggggccg tcgtcgggga  
 300  
 aacgtggtgc gaagggtggt tggccgcac cggcgctttt tcagtcgcag gcggaatgag  
 360  
 cccaccttgc cccgggagtt cactcgccgt gggcgctcag gtgcagtgtc tgtggatagt  
 420  
 ctggctgagc tggaagacgg agccctgctg ctgcagaccc tgcagctttc aaaaatttcc  
 480  
 tttccaattg gccaacgact tctgggatcc aaaaggaaga tgagtctcaa tccgattgag  
 540  
 aaacaaatcc cccaggttgt tgaggcttgc tgccaattca ttgaaaaaca tggcttaagc  
 600  
 gcagtgggga tttttaccct tgaatactcc gtgcagcgag tgcgtcagct ccgtgaagaa  
 660

ttt gat caag gtctggatgt agtgctggat gacaatcaga atgtgcatga tgtggctgca  
720  
ctcctcaagg agtttttccg tgacatgaag gattctctgc tgccagatga tctgtacatg  
780  
tcattcctcc tgacagcaac tttaaagccc caggatcagc tttctgccct gcagttgctg  
840  
gtctacctga cgccaccctg ccacagtgat accctggagc gtctgctgaa ggccctgcat  
900  
aaaatcactg agaactgcca ggactcaatt ggcatgtgat gacagttggt cccaggcaac  
960  
cgtatgactt ccactaactt ggcccttggtg tttggatctg ctctcctgaa aaaaggaaaag  
1020  
tttggcaaga gagagtccag gaaaacaaag ctggggattg atcactatgt tgcttctgtc  
1080  
aatgtggtcc gtgccatgat tgataactgg gatgtcctct tccaggtgcc tccccatatt  
1140  
cagaggcagg ttgctaagcg cgtgtggaag tccagcccgg aagcacttga ttttatcaga  
1200  
cgcaggaaact tgaggaagat ccagagtga cgcataaaga tggagagga tgcactactt  
1260  
tctgatccag tggaaacctc tgctgaagcc cgggctgctg tccttgctca aagcaagcct  
1320  
tctgatgaag gttcctctga ggagccagct gtgccttccg gcactgcccg ttcccatgac  
1380  
gatgaggaag gagcgggtaa cctcccatt ccggagcaag accgcccatt gctccgtgtg  
1440  
ccccgggaga aggaggccaa aactggcgtc agctacttct ttccttagat gtttttccct  
1500  
ctataagggtg ccagacaggg gaaaagggtg ggggtacatc tgggatgtca caggaaacat  
1560  
taagagaga gttgaaggta aagatctgaa ggtaagaagg agttccacct gatgctcggg  
1620  
tcaggatgag aattccaaac acactgccag ccccttcaact ggggatgctt ggtctcttct  
1680  
gctggtaaaa gcagagatgt ttctgtgtca tgcccaagct ccccggtgct accttgccct  
1740  
tctcttttac ccctgatctt ggctttctct ctctctctgc agactttcct ttaattgatg  
1800  
tgacatttgt ggtaaacacc tttcccaggg aacctcaca atcttgagat gctttccctt  
1860  
ccccaatgg gattgcatga tttccctgac tttcctaccc tcctccagag agctcagttg  
1920  
gaaaggccct caagaggcat gctagaacgt taggtcagcc tactgacagc tgacaaaaca  
1980  
ttaatgcgaa atcatgtcac accaaccct agccgtgtcc acgcagcaac tccaccacct  
2040  
taggatttcc ccctccaaat tattcagacc aatggcttgc caaatggcct ctcccaaat  
2100  
tctgtacagt tttgctcagg tcacgccaac agggaaacct caagtgtagg tctaattagt  
2160  
gtttctggga tccaaagtta gaggaaaatt tagattttat tgctggatc tgctttaag  
2220  
acaattggtg ttacaccct cttgtcagca aaacagctag ttaggtaagg acatatagtt  
2280

ccaagtaggt aaagtcactt gattacaaat gttcttaact atcgtctctg taattccttt  
 2340  
 atacaggaca gtacaaaatt gtgggacatg ctctggtaac acacagatat ggggtgcata  
 2400  
 tgatccagaa ttacagctga tattatggat gacaactgct aagggtccata aatgaagac  
 2460  
 tgtattgtat tgagggatag aaattgatca tttaatgggt aacaactgct gagctcaaag  
 2520  
 atttgtgatt gttaaaactt ctctggcatt taatcattaa taaacatctg tattgtgaca  
 2580  
 gcaaaaaaaaa aaaaaaaaaa aaaa  
 2604

<210> 976

<211> 411

<212> PRT

<213> Homo sapiens

<400> 976

Met	Gln	Val	Glu	Glu	Ala	Thr	Gly	Gln	Ala	Ala	Gly	Arg	Arg	Arg	Gly
1			5					10					15		
Asn	Val	Val	Arg	Arg	Val	Phe	Gly	Arg	Ile	Arg	Arg	Phe	Phe	Ser	Arg
			20					25				30			
Arg	Arg	Asn	Glu	Pro	Thr	Leu	Pro	Arg	Glu	Phe	Thr	Arg	Arg	Gly	Arg
		35					40				45				
Arg	Gly	Ala	Val	Ser	Val	Asp	Ser	Leu	Ala	Glu	Leu	Glu	Asp	Gly	Ala
	50					55				60					
Leu	Leu	Leu	Gln	Thr	Leu	Gln	Leu	Ser	Lys	Ile	Ser	Phe	Pro	Ile	Gly
65			70					75				80			
Gln	Arg	Leu	Leu	Gly	Ser	Lys	Arg	Lys	Met	Ser	Leu	Asn	Pro	Ile	Ala
			85					90				95			
Lys	Gln	Ile	Pro	Gln	Val	Val	Glu	Ala	Cys	Cys	Gln	Phe	Ile	Glu	Lys
	100							105				110			
His	Gly	Leu	Ser	Ala	Val	Gly	Ile	Phe	Thr	Leu	Glu	Tyr	Ser	Val	Gln
	115					120					125				
Arg	Val	Arg	Gln	Leu	Arg	Glu	Glu	Phe	Asp	Gln	Gly	Leu	Asp	Val	Val
	130					135				140					
Leu	Asp	Asp	Asn	Gln	Asn	Val	His	Asp	Val	Ala	Ala	Leu	Leu	Lys	Glu
145			150					155				160			
Phe	Phe	Arg	Asp	Met	Lys	Asp	Ser	Leu	Leu	Pro	Asp	Asp	Leu	Tyr	Met
			165					170				175			
Ser	Phe	Leu	Leu	Thr	Ala	Thr	Leu	Lys	Pro	Gln	Asp	Gln	Leu	Ser	Ala
	180							185				190			
Leu	Gln	Leu	Leu	Val	Tyr	Leu	Thr	Pro	Pro	Cys	His	Ser	Asp	Thr	Leu
	195					200				205					
Glu	Arg	Leu	Leu	Lys	Ala	Leu	His	Lys	Ile	Thr	Glu	Asn	Cys	Glu	Asp
	210					215				220					
Ser	Ile	Gly	Ile	Asp	Gly	Gln	Leu	Val	Pro	Gly	Asn	Arg	Met	Thr	Ser
225			230					235				240			
Thr	Asn	Leu	Ala	Leu	Val	Phe	Gly	Ser	Ala	Leu	Leu	Lys	Lys	Gly	Lys
			245					250				255			
Phe	Gly	Lys	Arg	Glu	Ser	Arg	Lys	Thr	Lys	Leu	Gly	Ile	Asp	His	Tyr
	260							265				270			
Val	Ala	Ser	Val	Asn	Val	Val	Arg	Ala	Met	Ile	Asp	Asn	Trp	Asp	Val

```

      275      280      285
Leu Phe Gln Val Pro Pro His Ile Gln Arg Gln Val Ala Lys Arg Val
  290      295      300
Trp Lys Ser Ser Pro Glu Ala Leu Asp Phe Ile Arg Arg Arg Asn Leu
  305      310      315      320
Arg Lys Ile Gln Ser Ala Arg Ile Lys Met Glu Glu Asp Ala Leu Leu
      325      330      335
Ser Asp Pro Val Glu Thr Ser Ala Glu Ala Arg Ala Ala Val Leu Ala
      340      345      350
Gln Ser Lys Pro Ser Asp Glu Gly Ser Ser Glu Glu Pro Ala Val Pro
      355      360      365
Ser Gly Thr Ala Arg Ser His Asp Asp Glu Glu Gly Ala Gly Asn Pro
      370      375      380
Pro Ile Pro Glu Gln Asp Arg Pro Leu Leu Arg Val Pro Arg Glu Lys
  385      390      395      400
Glu Ala Lys Thr Gly Val Ser Tyr Phe Phe Pro
      405      410

```

&lt;210&gt; 977

&lt;211&gt; 378

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 977

```

cgcgtagaagg gggccatcca gaggagcacg gagacggggc tggcagtgga gatgcccagc
60
cggacactgc gccaggccag ccacgagtcc attgaggaca gcatgaacag ctatggctca
120
gagggcaacc ttaactatgg aggagtttgc ctggcgtcgg acgcccagtt cagtgacttc
180
ctgggaagca tggggccggc acagtttgtg ggccgccaga cctgggccac cacacccatg
240
ggggatgtgg agatcggtct gcaggagcgg aacggtcagt tggaggtgga cattatccag
300
gctcggggac tgacagccaa gccaggetcc aagacactgc cagcggccta catcaaggcc
360
tacctgctag agatggca
378

```

&lt;210&gt; 978

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 978

```

Arg Val Lys Gly Ala Ile Gln Arg Ser Thr Glu Thr Gly Leu Ala Val
  1      5      10      15
Glu Met Pro Ser Arg Thr Leu Arg Gln Ala Ser His Glu Ser Ile Glu
      20      25      30
Asp Ser Met Asn Ser Tyr Gly Ser Glu Gly Asn Leu Asn Tyr Gly Gly
      35      40      45
Val Cys Leu Ala Ser Asp Ala Gln Phe Ser Asp Phe Leu Gly Ser Met
      50      55      60
Gly Pro Ala Gln Phe Val Gly Arg Gln Thr Leu Ala Thr Thr Pro Met

```

65		70		75		80									
Gly	Asp	Val	Glu	Ile	Gly	Leu	Gln	Glu	Arg	Asn	Gly	Gln	Leu	Glu	Val
		85		90		95									
Asp	Ile	Ile	Gln	Ala	Arg	Gly	Leu	Thr	Ala	Lys	Pro	Gly	Ser	Lys	Thr
		100		105		110									
Leu	Pro	Ala	Ala	Tyr	Ile	Lys	Ala	Tyr	Leu	Leu	Glu	Met	Ala		
		115		120		125									

&lt;210&gt; 979

&lt;211&gt; 3500

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 979

```

nntttttttt ttccagggga aaatgcttta ttgagtaaag tatccgagga agtgatgcag
60
ggcaggtaaa cagctggtgc tcagcagcga gaggacgcgt cactctgccg ttctgcaggg
120
tgacgccctc cccgtacctc gctgagagcc acctgcagac acagcaggcc acagcagaat
180
gcacaggtca ctgttgtagg ggaacaaatc gtaatgcca gagaaaacct cagcctccca
240
aagtgtctgg attacaggcg tgagccacgg cgctggcct ccttccttca cttttgaaat
300
taaagcctct ttgcaagtcc tgctctgaga aatggtcact gcacatggta aagaggccct
360
gagcccatg gccatctctc ttggtgaggg gtggcgggccc cgggtgctgt ctgagatgcc
420
agctcaggag ggctccatcc tggtctgct gcccagggc cggcggtccc ggagggctcc
480
aggttcccg ttctagtcct ggaaaggcag aaggagagg ggaagggaag ggtgggaggg
540
gcctctggga ggtgcagccc caccatgc cccacacccc gggactcctc gcagacgggg
600
acacgtgtgg gagtgtccgc ggagcttcac atttcagggc cgtctcagcc agtgccctctg
660
aagtggccgc agccttgggg ccaggttccc tctgagtc acctgggcca cattgctccc
720
acggtgcaca ctccagcaca agaattggctc agccttgatc ccccaaactg ggcaccgtcc
780
ctgcatgtag gtgtgtgggg gggcctcagc agcagacggg gccatgggccc tctggtgggg
840
cactcggctc ctgctcctgg gacgagctcc ggggggccc ggtggcattg gcccgacag
900
agatatggtc ccagcctccc ccgatgccgt agtcccagcc gtggcccttg ggctcgtgag
960
gctgcacgcc ggtgcgatga cacactgtcc cccggctcag gctgtggctg ccctgcactt
1020
tggtggcgat caccagacc tgggtccagg gccccacgga cactcggcac acgttggttg
1080
acacgtgtcc ccagctggag ccctgagggt agctgggctg gatcccttgg cgataccaca
1140
ggtttccatt ctcatccagg gcatacaccg acgtctgccc cgcggacacc tgcttcagcc
1200

```

tctgtctcgg tggggacggg atgtggtacc agcagtcacc ggctggctgc gaggggtaca  
1260  
cggatccccg gtagaaggcg gagccgtccc ttgccacggc ccacacctgg tagcaggccc  
1320  
cgatggagat ggaggcgaag agctggtcgg tgccaacgtg cagccaggag gagcccgcag  
1380  
ggttgagctc cgacacgccc aggcggcaca gcacatcccc cttgtcgtg acggcccaga  
1440  
gggcgatgct gtgcccactc cctcggcac ccgggctctc cgggatgatg gacacgtccc  
1500  
tgagggcgat ggggggcacc tccagccagg gccactggg caccagcttg cattttctgg  
1560  
cccagcacct cctcctcaca aaatccttca tcgttttga cccatggtat gaggcaggga  
1620  
agtcgctggc atactgccac cctcctggg ccgtgcccc cggaacgtg aaatccacga  
1680  
accagtcgga aaccaggcc cactgcaggg acgggggctt cgtgccagcc ttcgtgcact  
1740  
cctgcagccc cgaggcatcg ctccacatgt accggtccgt gggcagaccc ctgctgggtg  
1800  
agcctgtgac ggggttccag cgctggttct catagatgtg aacacacttc acgtctgact  
1860  
gcgtgtagat gttactggtg ctgctggcca ggccttgga gcagccgct ccatagccgc  
1920  
ctgtgtatac ccaggccgtg tggcatagc cgatgcccc caccacgccc cggctgttg  
1980  
cctccaccat ccgcagggtg cctcccatct gccgcaaaa catctggctg cagggcaggg  
2040  
ggtgctcgtg ggctccagg tctgggtggg ctgctcacg aagatgtccc ccttgcagg  
2100  
gatggaccag atggcctgcg gggacggcg gccctgcacc ttccggctct cgcagcaaga  
2160  
caggctgagc agggcgagcc agtcattcat gtctgctcg gtggcagcag ccagacgcac  
2220  
cggccacctc tgccgtgtcc gctcaggggt gtacagggca aaggagtgt tggctcgtt  
2280  
cagcactggg accagcgcca ccacctcatt caggaatatg tggatgtact tcttctctc  
2340  
gtggaccaca tagtagatga agaggatgct gtccccgacg ccgtcgtgcc ccgtgaactg  
2400  
ctccagggcc aagcgcacgt ccacccactt gtggggcttc cagtcgcacc accactgcag  
2460  
cgccccggtc ttcacccaca ccgactgtc cagggcctgc tcgtagtgtc tgaagttctc  
2520  
cagctccccg ttggtccttt ccgtgagctg ctggaagatc tgcttctctc aggcagcgg  
2580  
ctgggcccgc gtgatggaca gggacagcat gtgtaccgag gaggacaggc ctgtggggca  
2640  
gagagagcct cagggccggg gactgtcct gccgcagct gggcaggaag ccacggcgct  
2700  
ccccccacc aaatcagccc tttctagctc aaaagctacg ctctctgtta agcctcctc  
2760  
cacccttgc cctgatggat gagtgtctct ccccagtaa ttcagcctgg aaagcagcca  
2820

ccaccgctag cacaggggag gggctgcaga caggggaagg ggcactggcc accgtgcttc  
 2880  
 caggtcctga cagcctcggg ctggtctctg gaggccacag aggagcgcaa tgcctggctc  
 2940  
 agagctgctg agcacagtga ggcgtccagg gaggacagca ggctgcccc agccccctga  
 3000  
 ccccgccctc ctccacaccc ccacaccccc agggcacctg gccatgtgga tgcccccagg  
 3060  
 cctgcagga gcccttacct gcctggacag tgaaccatct gggcatggca catgcctcca  
 3120  
 ccacgcagcc gcctcccgac acccaggccc acagcgggtg gtcattccacc ccatacggct  
 3180  
 cctccaagcc cagtgggagg agccccagag aggagaggct ggtggtctcg gggaagccag  
 3240  
 cggccgagtg gctgggcact ttcttgacct ccttgaggtc aatattggtc cagggcagct  
 3300  
 cggccgggggt gggggccggg ccgggggtgcg tgttgggtct ggctccctg ctgccctcgg  
 3360  
 ctgggcaggc atcttccacg gtatcttctg cggctctgcc agcccccagg cctgaggtcg  
 3420  
 agttccctgt ggcattcttg gaatcgtcta gaggttctgc agggagaatc tggccaggcc  
 3480  
 ctggtctctc gacttccgag  
 3500

&lt;210&gt; 980

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 980

Met	Ser	Cys	Ser	Pro	Pro	Val	Ile	Gln	Pro	Gly	Lys	Gln	Pro	Pro	Pro
1				5				10					15		
Leu	Ala	Gln	Gly	Arg	Gly	Cys	Arg	Gln	Gly	Lys	Gly	His	Trp	Pro	Pro
		20						25				30			
Cys	Phe	Gln	Val	Leu	Thr	Ala	Ser	Gly	Trp	Ser	Leu	Glu	Ala	Thr	Glu
		35					40					45			
Glu	Arg	Asn	Ala	Trp	Leu	Arg	Ala	Ala	Glu	His	Ser	Glu	Ala	Ser	Arg
	50					55					60				
Glu	Asp	Ser	Arg	Pro	Ala	Arg	Ala	Pro							
65						70									

&lt;210&gt; 981

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 981

nacgcgtacg cggactcgac ggcagtggtc ggcccgttg cgcccgcgcc cgacccccac  
 60  
 gcctgggact tgtgcgagcg ccaactccgcc cacatcacag cgccggtggg gtgggagctg  
 120  
 gttcgcgtcg agcacgtcga gcttgacgac gaagacgtgg acgacgagaa caccgacatc  
 180

accgcactcg cggaggcggg tgcgcgaggg ggggcgggta accaccgggt tgggtggagac  
240  
cggccaggat ccgatcgagt actcggcaga caaagacttc aacaaccag acacctccaa  
300  
ccatccggtg caccggacca agcgtgtgga ggaacagcta gcggcgaca agggggcgcg  
360  
ccgctccac ctgcgcattg tcccggatcc gaaccgggac gcgt  
404

<210> 982

<211> 134

<212> PRT

<213> Homo sapiens

<400> 982

Xaa	Ala	Tyr	Ala	Asp	Ser	Thr	Ala	Val	Val	Gly	Pro	Leu	Ala	Pro	Ala
1				5					10					15	
Pro	Asp	Pro	His	Ala	Trp	Asp	Leu	Cys	Glu	Arg	His	Ser	Ala	His	Ile
			20					25					30		
Thr	Ala	Pro	Val	Gly	Trp	Glu	Leu	Val	Arg	Val	Glu	His	Val	Glu	Leu
		35					40						45		
Asp	Asp	Glu	Asp	Val	Asp	Asp	Glu	Asn	Thr	Asp	Ile	Thr	Ala	Leu	Ala
	50					55					60				
Glu	Ala	Gly	Ala	Arg	Gly	Gly	Ala	Gly	Asn	His	Arg	Phe	Gly	Gly	Asp
65				70					75					80	
Arg	Pro	Gly	Ser	Asp	Arg	Val	Leu	Gly	Arg	Gln	Arg	Leu	Gln	Gln	Pro
			85						90					95	
Arg	His	Leu	Gln	Pro	Ser	Gly	Ala	Pro	Asp	Gln	Ala	Cys	Gly	Gly	Thr
		100						105					110		
Ala	Ser	Gly	Ala	Gln	Gly	Gly	Ala	Pro	Leu	Pro	Pro	Ala	His	Cys	Pro
		115					120						125		
Gly	Ser	Glu	Pro	Gly	Arg										
		130													

<210> 983

<211> 579

<212> DNA

<213> Homo sapiens

<400> 983

ctttctccca tggctgccac ctgcctcaac aaaagccaaa gccctcacca tggcccaaag  
60  
accctacata atctgggtcc ctttacctct cttaccttgt ctectatcac tctcaatate  
120  
actcactctt ctccagctac actggcctcc ttgctgttcc ccaagcgtgc tagataccct  
180  
tccttttcag ggcttttgta cttgtttctt tcaactgctg aaacaccctt cctcctaaat  
240  
aatctgatga gttgccctag tacttccagt gtgctcaaat gtcacctccc tagagaagtg  
300  
tttctgata aacatatcta aaatcgcccc atcacatgca ttttatatcc ctttatecta  
360  
atztatgtat gttttttctac aaagcactga tcaccacctg gtatatattta tattttatta  
420



ttgtggttag tggtcgtctc ttttcagtag actgtaagct ccataaagca gggacttctg  
 480  
 ttttggtcac tgctgtatcc ccagtgccaa aaacaacagt gcatagtaga tactcaataa  
 540  
 atatttgtgg aataaactga aaaaaaaaaa aaaaaaaaaa  
 579

<210> 984  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 984  
 Met Ala Ala Thr Cys Leu Asn Lys Ser Gln Ser Pro His His Gly Pro  
 1 5 10 15  
 Lys Thr Leu His Asn Leu Gly Pro Phe Thr Ser Leu Thr Leu Ser Pro  
 20 25 30  
 Ile Thr Leu Asn Ile Thr His Ser Ser Pro Ala Thr Leu Ala Ser Leu  
 35 40 45  
 Leu Phe Pro Lys Arg Ala Arg Tyr Pro Ser Phe Ser Gly Pro Leu Tyr  
 50 55 60  
 Leu Phe Phe Ser Leu Pro Glu Thr Pro Phe Leu Leu Asn Asn Leu Met  
 65 70 75 80  
 Ser Cys Pro Ser Thr Ser Ser Val Leu Lys Cys His Leu Pro Arg Glu  
 85 90 95  
 Val Phe Pro Asp Gln His Ile  
 100

<210> 985  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 985  
 acgcgtccct caaggtgaaa tgaatggcct tgctgtcacg gtacatacta agcttgataa  
 60  
 aaagcaacaa cttggcaata ttcaaatgag ttactctgct aagaacatcg atgtggcaaa  
 120  
 ctttaaagct catgatctta aacttggtcac agaaattaat catttagaca accagatctt  
 180  
 tattgattat gcaaaattga ttaaagaatc cgatgcgctg ccagtagatc aacaagtcgc  
 240  
 gtttttctta aataatatgc aaagtattat tgacggaaag cctgagctaa atataacaga  
 300  
 gttgagcggg ttc  
 313

<210> 986  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 986  
 Met Asn Gly Leu Ala Val Thr Val His Thr Lys Leu Asp Lys Lys Gln

1	5	10	15
Gln Leu Gly Asn Ile Gln Met Ser Tyr Ser Ala Lys Asn Ile Asp Val			
20	25	30	
Ala Asn Phe Lys Ala His Asp Leu Lys Leu Val Thr Glu Ile Asn His			
35	40	45	
Leu Asp Asn Gln Ile Phe Ile Asp Tyr Ala Lys Leu Ile Lys Glu Ser			
50	55	60	
Asp Ala Leu Pro Val Asp Gln Gln Val Ala Phe Phe Leu Asn Asn Met			
65	70	75	80
Gln Ser Ile Ile Asp Gly Lys Pro Glu Leu Asn Ile Thr Glu Leu Ser			
85	90	95	
Gly Phe			

&lt;210&gt; 987

&lt;211&gt; 4224

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 987

```

nnttttggat tcttactgta gctctatctc atttatccat catagcgtcc cggggagatg
60
gggtcaggag atagcagtgc caaccacta gcaagggtt gactgggata tatcacatga
120
tccccaaagg cataacatga agtctgtatt atccccacat atgcagaagg aaggcttgga
180
gaagcaatct gaccaagatc acatcccttt tttttttctg gagatggagg gggagtctca
240
ctgtgttacc ccagctagtc ttgaactcct ggctcaggg atccacctgc ctcagcccc
300
caagtagctg ggattacaag tgctagccac tgaacctggc cagaatcaca tcatttttaa
360
atggctgaac taggatttaa acccatgtct gattaaacat cccaagatgt tttccatggt
420
aagtctgtgt caatcgttag ttccctgaag gaaggcttaa tctagcaaca gtattttctg
480
tatctactcc cctggtttct cccacagag ctagggccat gagtacctg tttttgactg
540
gaaggagctg tggggtggac cgtttccctg aaagctagaa gaatgttga agcctgttcc
600
caaggaccct tgaacatctg tgaagaaatg actattctgc atggaggctt ctgctggcc
660
gagcagctgt tccaccctaa ggcactggca gaattaacaa agtctgactg ggaacgtgtt
720
ggacggccca tcgtgggggc cttaagggag atctcctcgg ctgcagcaca ctcccagccc
780
tttgcttga agaagaaagc cctgatcatc atctgggcca aggttctgca gccgcacccc
840
gtgacccctg ccgacacaga gacacggtgg caggaagacc tgttcttctc ggtgggcaac
900
atgatcccca ccatcaacca caccatcctc ttcgagctgc tcaaatccct ggaagcttct
960
ggactcttta tccagctcct gatggcctg cccaccacca tctgccatgc agaactagag
1020

```

cgctttctgg aacatgtgac cgttgacact tctgccgaag acgtggcctt ctccctggac  
1080  
gtctgggtggg aggtgatgaa gcacaagggg caccgcagg acccctgct ctcccagttt  
1140  
agtgaatgg ccataagta cctgcctgcc ttagatgagt tccccatcc tccaaagagg  
1200  
cttaggtcag acccagagcg gtgcccacc atgcccctgt tggccatgct gctccgctgg  
1260  
ctgacacaga tccagagtcg gatcctgggc cgggggagga agtgctgtgc gctggccaac  
1320  
ctggctgaca tgctgactgt gtttgctgtg acagaggacg acccccagga ggtgtctgca  
1380  
accgtgtatc tggacaaact ggccacgggtg atctctgtgt ggaactcgga caccagaat  
1440  
ccctaccacc agcaggcgct ggcagagaag gtgaaggagg cagaacggga tgcagcctg  
1500  
acctcgctgg ccaaactccc cagtgaagacc atttctgtgg gctgcgagtt cctgcaccac  
1560  
ctgctgctgg agtggtggga ggagttgcag gccgtgctcc gcagcagcca ggggacaagt  
1620  
tacgacagct accggtgtg cgacagtctg acttccttca gccagaacgc gacgtctac  
1680  
ctgaaccgca ccagcctgtc caaggaggac aggcaggtgg tctctgagct ggcggagtgt  
1740  
gtcagggact tctgaggaa aacgagcagc gtgctgaaga acagggcctt ggaggatatc  
1800  
acagcttcca ttgccatggc cgtcatccag cagaagatgg accgccatat ggaagtgtgc  
1860  
tacatttttg cctctgagaa gaagtgggcc ttctcgacg agtgggtagc ctgcctgggg  
1920  
agtaacaggg ccctcttccg agagccagac ttggtgttga ggctgctgga aacagtgata  
1980  
gacgtcagca cagctgacag agccatccct gagtctcaga tccggcaggt gatccacctg  
2040  
atcctggaat gttacgcaga cctctccctg ccaggtaaaa ataaagtcct tgcaggtatc  
2100  
ctgcgttccct gggggcgaaa gggcctctct gaaaagttgc tggcttatgt ggagggtttt  
2160  
caggaagacc tcaatacaac ttttaaccag ctactcaga gtgcctccga acagggcttg  
2220  
gcaaaagctg tggcctccgt ggcccgcctg gtcatagtgc acccggaagt cacggtgaag  
2280  
aaaatgtgca gcctggctgt ggtcaatctc ggcaccaca agttcctggc ccagattctc  
2340  
actgccttcc ctgcccttag gtttgtgga gtgcagggtc ccaattcctc tgcactttc  
2400  
atggtgtcat gcctcaaaga aaccgtctgg atgaagttct ctacacccaa ggaagaaaag  
2460  
caatttttag agctcctgaa ctgcctgatg agtcccgtga aaccccaagg gattccagt  
2520  
gctgctcttc ttgagccaga cgaggtgctg aaggaatttg tctgccttt cttaggtta  
2580  
gatgttgaag aggtagacct cagtctgagg atcttcatcc agactctaga ggcaaacgcg  
2640

tgccgagagg aatactggct ccagacctgc tccccgtttc cactcctctt cagcttgtgc  
2700  
cagctcttgg accgcttcag caaatactgg cagcttccca aggagaagcg gtgcctctct  
2760  
ttggatagga aggatctagc gatccatata ctggagctcc tgtgtgagat tgtatcagcc  
2820  
aatgctgaga ccttctcccc ggatgtctgg atcaagtccc tgtcctggct ccaccgcaag  
2880  
ttagaacagc tagactggac tgtgggcttg aggetgaaga gcttcttcga ggggcacttc  
2940  
aagtgtgaag tgccagccac actttttgag atctgtaagc tttcagaaga cgagtggacc  
3000  
tcccaggccc acccagggtg cggggctggc acggggctcc tggcctggat ggagtgtgc  
3060  
tgctctcca gcggcatctc ggagaggatg ctgtctctct tgggtgtgga cgtgggcaat  
3120  
cctgaggagg tcagactgtt cagcaaaggc tttctgggtg ccctgggtgca agtcatgcct  
3180  
tgggtgcagc ctcaggagtg gcagcgctt caccagctga ccaggagact gctggagaag  
3240  
cagctcctcc atgtccctta tagcctggaa tatattcagt ttgttcccct gctcaacctg  
3300  
aagccctttg cccaggagtt gcaactctcc gtctcttcc tgaggacttt ccagtttctc  
3360  
tgagccata gctgtcgtaa ttggcttcc ctggaaggct ggaaccacgt ggtcaaactc  
3420  
ctctgtggca gtctgacctg cctcctggac tcagtcaggg cgatacaggc agctggccct  
3480  
tggtttcaag gaccagagca ggacctgacc caggaagccc tgtttgttta caccaggtg  
3540  
ttctgccatg ctctgcacat catggccatg ctccaccgg aggtctgtga gccactctac  
3600  
gttttagcct tggaaacct cactgtctat gagactttga gcaagaccaa cccttctgtc  
3660  
agctccttgc tccagagggc acacgagcag tgcttcttaa agtccattgc tgagggcatc  
3720  
ggccctgaag aacggcgcca aacctgttg cagaagatga gcagcttctg acttggcgtg  
3780  
gggagctggg cccaacatg gcgggtctgc agaagatcag cagcttctta cctgtgcggg  
3840  
agcgaaaaag ctgggcttca acatggcagg tctgtagggg tcagaccga gcagcctgga  
3900  
ctttacagtt atgtgaaact gtccacaaaa agtcatggca ataattggtg aaagaaaata  
3960  
gtttcttggg tatttgtaac gtacaaacta tcataaaaat tctcctctt cgcattctac  
4020  
tttgtctctt ctaagtggc ctcagcaata gccaggatt aaatatgctc tgaaattggg  
4080  
tttagtgtct tcaagatcaa atccagccgg gaggaacatg ttcataactg gacttttcca  
4140  
tcctagatgt tggcaaataa gcccaggtt gaaaccatgt gagtggaaaa agcattacat  
4200  
ggtacgtata acccccaaaa aaaa  
4224

<210> 988  
 <211> 873  
 <212> PRT  
 <213> Homo sapiens

<400> 988  
 Ala His Lys Tyr Leu Pro Ala Leu Asp Glu Phe Pro His Pro Pro Lys  
 1 5 10 15  
 Arg Leu Arg Ser Asp Pro Asp Ala Cys Pro Thr Met Pro Leu Leu Ala  
 20 25 30  
 Met Leu Leu Arg Gly Leu Thr Gln Ile Gln Ser Arg Ile Leu Gly Pro  
 35 40 45  
 Gly Arg Lys Cys Cys Ala Leu Ala Asn Leu Ala Asp Met Leu Thr Val  
 50 55 60  
 Phe Ala Leu Thr Glu Asp Asp Pro Gln Glu Val Ser Ala Thr Val Tyr  
 65 70 75 80  
 Leu Asp Lys Leu Ala Thr Val Ile Ser Val Trp Asn Ser Asp Thr Gln  
 85 90 95  
 Asn Pro Tyr His Gln Gln Ala Leu Ala Glu Lys Val Lys Glu Ala Glu  
 100 105 110  
 Arg Asp Val Ser Leu Thr Ser Leu Ala Lys Leu Pro Ser Glu Thr Ile  
 115 120 125  
 Phe Val Gly Cys Glu Phe Leu His His Leu Leu Arg Glu Trp Gly Glu  
 130 135 140  
 Glu Leu Gln Ala Val Leu Arg Ser Ser Gln Gly Thr Ser Tyr Asp Ser  
 145 150 155 160  
 Tyr Arg Leu Cys Asp Ser Leu Thr Ser Phe Ser Gln Asn Ala Thr Leu  
 165 170 175  
 Tyr Leu Asn Arg Thr Ser Leu Ser Lys Glu Asp Arg Gln Val Val Ser  
 180 185 190  
 Glu Leu Ala Glu Cys Val Arg Asp Phe Leu Arg Lys Thr Ser Thr Val  
 195 200 205  
 Leu Lys Asn Arg Ala Leu Glu Asp Ile Thr Ala Ser Ile Ala Met Ala  
 210 215 220  
 Val Ile Gln Gln Lys Met Asp Arg His Met Glu Val Cys Tyr Ile Phe  
 225 230 235 240  
 Ala Ser Glu Lys Lys Trp Ala Phe Ser Asp Glu Trp Val Ala Cys Leu  
 245 250 255  
 Gly Ser Asn Arg Ala Leu Phe Arg Glu Pro Asp Leu Val Leu Arg Leu  
 260 265 270  
 Leu Glu Thr Val Ile Asp Val Ser Thr Ala Asp Arg Ala Ile Pro Glu  
 275 280 285  
 Ser Gln Ile Arg Gln Val Ile His Leu Ile Leu Glu Cys Tyr Ala Asp  
 290 295 300  
 Leu Ser Leu Pro Gly Lys Asn Lys Val Leu Ala Gly Ile Leu Arg Ser  
 305 310 315 320  
 Trp Gly Arg Lys Gly Leu Ser Glu Lys Leu Leu Ala Tyr Val Glu Gly  
 325 330 335  
 Phe Gln Glu Asp Leu Asn Thr Thr Phe Asn Gln Leu Thr Gln Ser Ala  
 340 345 350  
 Ser Glu Gln Gly Leu Ala Lys Ala Val Ala Ser Val Ala Arg Leu Val  
 355 360 365  
 Ile Val His Pro Glu Val Thr Val Lys Lys Met Cys Ser Leu Ala Val

370	375	380
Val Asn Leu Gly Thr His Lys Phe Leu Ala Gln Ile Leu Thr Ala Phe		
385	390	395
Pro Ala Leu Arg Phe Val Glu Val Gln Gly Pro Asn Ser Ser Ala Thr		400
	405	410
Phe Met Val Ser Cys Leu Lys Glu Thr Val Trp Met Lys Phe Ser Thr		415
	420	425
Pro Lys Glu Glu Lys Gln Phe Leu Glu Leu Leu Asn Cys Leu Met Ser		430
	435	440
Pro Val Lys Pro Gln Gly Ile Pro Val Ala Ala Leu Leu Glu Pro Asp		445
	450	455
Glu Val Leu Lys Glu Phe Val Leu Pro Phe Leu Arg Leu Asp Val Glu		460
465	470	475
Glu Val Asp Leu Ser Leu Arg Ile Phe Ile Gln Thr Leu Glu Ala Asn		480
	485	490
Ala Cys Arg Glu Glu Tyr Trp Leu Gln Thr Cys Ser Pro Phe Pro Leu		495
	500	505
Leu Phe Ser Leu Cys Gln Leu Leu Asp Arg Phe Ser Lys Tyr Trp Gln		510
	515	520
Leu Pro Lys Glu Lys Arg Cys Leu Ser Leu Asp Arg Lys Asp Leu Ala		525
	530	535
Ile His Ile Leu Glu Leu Leu Cys Glu Ile Val Ser Ala Asn Ala Glu		540
545	550	555
Thr Phe Ser Pro Asp Val Trp Ile Lys Ser Leu Ser Trp Leu His Arg		560
	565	570
Lys Leu Glu Gln Leu Asp Trp Thr Val Gly Leu Arg Leu Lys Ser Phe		575
	580	585
Phe Glu Gly His Phe Lys Cys Glu Val Pro Ala Thr Leu Phe Glu Ile		590
	595	600
Cys Lys Leu Ser Glu Asp Glu Trp Thr Ser Gln Ala His Pro Gly Tyr		605
	610	615
Gly Ala Gly Thr Gly Leu Leu Ala Trp Met Glu Cys Cys Cys Val Ser		620
625	630	635
Ser Gly Ile Ser Glu Arg Met Leu Ser Leu Leu Val Val Asp Val Gly		640
	645	650
Asn Pro Glu Glu Val Arg Leu Phe Ser Lys Gly Phe Leu Val Ala Leu		655
	660	665
Val Gln Val Met Pro Trp Cys Ser Pro Gln Glu Trp Gln Arg Leu His		670
	675	680
Gln Leu Thr Arg Arg Leu Leu Glu Lys Gln Leu Leu His Val Pro Tyr		685
	690	695
Ser Leu Glu Tyr Ile Gln Phe Val Pro Leu Leu Asn Leu Lys Pro Phe		700
705	710	715
Ala Gln Glu Leu Gln Leu Ser Val Leu Phe Leu Arg Thr Phe Gln Phe		720
	725	730
Leu Cys Ser His Ser Cys Arg Asn Trp Leu Pro Leu Glu Gly Trp Asn		735
	740	745
His Val Val Lys Leu Leu Cys Gly Ser Leu Thr Arg Leu Leu Asp Ser		750
	755	760
Val Arg Ala Ile Gln Ala Ala Gly Pro Trp Val Gln Gly Pro Glu Gln		765
	770	775
Asp Leu Thr Gln Glu Ala Leu Phe Val Tyr Thr Gln Val Phe Cys His		780
785	790	795
Ala Leu His Ile Met Ala Met Leu His Pro Glu Val Cys Glu Pro Leu		800

805 810 815  
 Tyr Val Leu Ala Leu Glu Thr Leu Thr Cys Tyr Glu Thr Leu Ser Lys  
 820 825 830  
 Thr Asn Pro Ser Val Ser Ser Leu Leu Gln Arg Ala His Glu Gln Cys  
 835 840 845  
 Phe Leu Lys Ser Ile Ala Glu Gly Ile Gly Pro Glu Glu Arg Arg Gln  
 850 855 860  
 Thr Leu Leu Gln Lys Met Ser Ser Phe  
 865 870

<210> 989  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 989  
 gcgtgggata tcgatacccg tcttgagcag gccatggacg ccttgcaagt cccccaggc  
 60  
 gacacccttg ttgacgtctt gtcaggcggt gagcggcgtc gtgtcgcgct atgcaagctg  
 120  
 ttgatcgagc agcctgacct gctgcttctc gatgagccca ccaaccacct ggatgctgag  
 180  
 tctgtcaact ggttggaggg acacctcaag tcctatccgg gagctgtgct agccgtcact  
 240  
 cagcaccgct atttccttga tcacgtcgcc gagtggatct gtgaggtcga tcgcggccag  
 300  
 ttgcaccct acgagggcaa ctactcgacg tacctggaca ccaagcgcaa gcgtctccag  
 360  
 atcgaaggca agaaagacgc taaacgcgcc aagatcctcg ag  
 402

<210> 990  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 990  
 Ala Trp Asp Ile Asp Thr Arg Leu Glu Gln Ala Met Asp Ala Leu Gln  
 1 5 10 15  
 Cys Pro Pro Gly Asp Thr Pro Val Asp Val Leu Ser Gly Gly Glu Arg  
 20 25 30  
 Arg Arg Val Ala Leu Cys Lys Leu Leu Ile Glu Gln Pro Asp Leu Leu  
 35 40 45  
 Leu Leu Asp Glu Pro Thr Asn His Leu Asp Ala Glu Ser Val Asn Trp  
 50 55 60  
 Leu Glu Gly His Leu Lys Ser Tyr Pro Gly Ala Val Leu Ala Val Thr  
 65 70 75 80  
 His Asp Arg Tyr Phe Leu Asp His Val Ala Glu Trp Ile Cys Glu Val  
 85 90 95  
 Asp Arg Gly Gln Leu His Pro Tyr Glu Gly Asn Tyr Ser Thr Tyr Leu  
 100 105 110  
 Asp Thr Lys Arg Lys Arg Leu Gln Ile Glu Gly Lys Lys Asp Ala Lys  
 115 120 125  
 Arg Ala Lys Ile Leu Glu

130

<210> 991  
 <211> 359  
 <212> DNA  
 <213> Homo sapiens

<400> 991  
 tctagaatta aagccaaaaa aactcaggct gaagtggcag aagctgtaaa gatgtcgcaa  
 60  
 cccgcctatc aggctttaga gtcagggaaa aatttaaaat ctgcatttct tcctttaatt  
 120  
 gcccaatttt taggagtaga tggttattgg ttaacgacgg ggaatactga agattctttt  
 180  
 agagaaagtg atgtatttag cccgactgta gtgagtgcag aatctactga tcagtatgtt  
 240  
 tggattgaag ttgtagaagc taacttttct tgcgggacag gtgaatctat tgaatttcac  
 300  
 tttgatgcta ttaatggaaa aattccattc cctgcttcat tctttaaaga aaaacgcgt  
 359

<210> 992  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 992  
 Ser Arg Ile Lys Ala Lys Lys Thr Gln Ala Glu Val Ala Glu Ala Val  
 1 5 10 15  
 Lys Met Ser Gln Pro Ala Tyr Gln Ala Leu Glu Ser Gly Lys Asn Leu  
 20 25 30  
 Lys Ser Ala Phe Leu Pro Leu Ile Ala Gln Phe Leu Gly Val Asp Gly  
 35 40 45  
 Tyr Trp Leu Thr Thr Gly Asn Thr Glu Asp Ser Phe Arg Glu Ser Asp  
 50 55 60  
 Val Phe Ser Pro Thr Val Val Ser Ala Glu Ser Thr Asp Gln Tyr Val  
 65 70 75 80  
 Trp Ile Glu Val Val Glu Ala Asn Phe Ser Cys Gly Thr Gly Glu Ser  
 85 90 95  
 Ile Glu Phe His Phe Asp Ala Ile Asn Gly Lys Ile Pro Phe Pro Ala  
 100 105 110  
 Ser Phe Phe Lys Glu Lys Arg  
 115

<210> 993  
 <211> 450  
 <212> DNA  
 <213> Homo sapiens

<400> 993  
 ngcgcgccgg gcaccacata cgacgacggg acgttattca cctctaacgt gtagccgccc  
 60  
 tcgcggtccg gatccgcgat gatggccgcg tggcctgaag caatggggta ggtgcccgtg  
 120



atgcgtcgct ttggcgacag aggtttacgc cgtggggagt tcataagga aataaccagca  
 180  
 cagggctcga ccagttgtta cgatcgctgc atgatctact tgtegcagga ttatatcggt  
 240  
 gagctacca agcaacatat ctgcgtggga aagtttgatc ccgacaatat tctgcgga  
 300  
 ccgaacgaac tgtttgccac gtgggttaaa gaagccgttg agaacgaagt cggcgaccct  
 360  
 actgcggtca ccgtggccac ggtggacgac aacggtcagc ccgatgcgcg agtcgtcgac  
 420  
 cttctgtacc tcaactccga cggcttcac  
 450

<210> 994  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 994  
 Met Arg Arg Phe Gly Ala Arg Gly Leu Arg Arg Gly Glu Phe Ile Arg  
 1 5 10 15  
 Glu Ile Pro Ala Gln Gly Arg Thr Ser Cys Tyr Asp Arg Cys Met Ile  
 20 25 30  
 Tyr Leu Ser Gln Asp Tyr Ile Gly Glu Leu Pro Lys Gln His Ile Ser  
 35 40 45  
 Leu Gly Lys Phe Asp Pro Asp Asn Ile Pro Ala Asp Pro Asn Glu Leu  
 50 55 60  
 Phe Ala Thr Trp Phe Lys Glu Ala Val Glu Asn Glu Val Gly Asp Pro  
 65 70 75 80  
 Thr Ala Val Thr Val Ala Thr Val Asp Asp Asn Gly Gln Pro Asp Ala  
 85 90 95  
 Arg Val Val Asp Leu Leu Tyr Leu Asn Ser Asp Gly Phe His  
 100 105 110

<210> 995  
 <211> 924  
 <212> DNA  
 <213> Homo sapiens

<400> 995  
 cgggagctgg tggaccagga cgtgcagcct gccgctacc acatcgctt tgggccggtg  
 60  
 gtggatggcg acgtgggtccc cgatgaccct gagatcctca tgcagcaggg agaattctc  
 120  
 aactacgaca tgctcatcgg cgtcaaccag ggagagggcc tcaagttcgt ggaggactct  
 180  
 gcagagagcg aggacggtgt gtctgccagc gcctttgact tcaactgtct caactttgtg  
 240  
 gacaacctgt atggctaccc ggaaggcaag gatgtgcttc gggagaccat caagtttatg  
 300  
 tacacagact gggccgaccg ggacaatggc gaaatgcgcc gcaaaacct gctggcgctc  
 360  
 tttactgacc accaatgggt ggcaccagct gtggccactg ccaagctgca cgcgactac  
 420

cagtctcccg tctactttta caccttctac caccactgcc aggcggaggg ccggcctgag  
 480  
 tgggcagatg cggcgcacgg ggatgaactg ccctatgtct ttggcgtgcc catggtgggt  
 540  
 gccaccgacc tcttccctg taacttctcc aagaatgacg tcatgctcag tgccgtggtc  
 600  
 atgacctact ggaccaactt cgccaagact ggggacccca accagccggt gccgcaggat  
 660  
 accaagttca tccacaccaa gcccaatcgc ttcgaggagg tgggtgtggag caaattcaac  
 720  
 agcaaggaga agcagtatct gcacataggc ctgaagccac gcgtgcgtga caactaccgc  
 780  
 gccacaagg tggccttctg gctggagctc gtgccccacc tgcacaacct gcacacggag  
 840  
 ctcttcacca ccaccacggc cctgctctcc tacgccacgc gctggccgccc tegtcccccc  
 900  
 gctggcgccc cgggcacacg ccgg  
 924

&lt;210&gt; 996

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 996

Arg	Glu	Leu	Val	Asp	Gln	Asp	Val	Gln	Pro	Ala	Arg	Tyr	His	Ile	Ala
1				5				10						15	
Phe	Gly	Pro	Val	Val	Asp	Gly	Asp	Val	Val	Pro	Asp	Asp	Pro	Glu	Ile
			20					25					30		
Leu	Met	Gln	Gln	Gly	Glu	Phe	Leu	Asn	Tyr	Asp	Met	Leu	Ile	Gly	Val
		35					40					45			
Asn	Gln	Gly	Glu	Gly	Leu	Lys	Phe	Val	Glu	Asp	Ser	Ala	Glu	Ser	Glu
	50					55					60				
Asp	Gly	Val	Ser	Ala	Ser	Ala	Phe	Asp	Phe	Thr	Val	Ser	Asn	Phe	Val
65				70					75					80	
Asp	Asn	Leu	Tyr	Gly	Tyr	Pro	Glu	Gly	Lys	Asp	Val	Leu	Arg	Glu	Thr
			85					90						95	
Ile	Lys	Phe	Met	Tyr	Thr	Asp	Trp	Ala	Asp	Arg	Asp	Asn	Gly	Glu	Met
		100						105					110		
Arg	Arg	Lys	Thr	Leu	Leu	Ala	Leu	Phe	Thr	Asp	His	Gln	Trp	Val	Ala
		115					120					125			
Pro	Ala	Val	Ala	Thr	Ala	Lys	Leu	His	Ala	Asp	Tyr	Gln	Ser	Pro	Val
	130					135					140				
Tyr	Phe	Tyr	Thr	Phe	Tyr	His	His	Cys	Gln	Ala	Glu	Gly	Arg	Pro	Glu
145				150					155					160	
Trp	Ala	Asp	Ala	Ala	His	Gly	Asp	Glu	Leu	Pro	Tyr	Val	Phe	Gly	Val
			165					170						175	
Pro	Met	Val	Gly	Ala	Thr	Asp	Leu	Phe	Pro	Cys	Asn	Phe	Ser	Lys	Asn
		180					185					190			
Asp	Val	Met	Leu	Ser	Ala	Val	Val	Met	Thr	Tyr	Trp	Thr	Asn	Phe	Ala
	195					200						205			
Lys	Thr	Gly	Asp	Pro	Asn	Gln	Pro	Val	Pro	Gln	Asp	Thr	Lys	Phe	Ile
	210					215					220				
His	Thr	Lys	Pro	Asn	Arg	Phe	Glu	Glu	Val	Val	Trp	Ser	Lys	Phe	Asn

225                      230                      235                      240  
 Ser Lys Glu Lys Gln Tyr Leu His Ile Gly Leu Lys Pro Arg Val Arg  
                                  245                      250                      255  
 Asp Asn Tyr Arg Ala Asn Lys Val Ala Phe Trp Leu Glu Leu Val Pro  
                                  260                      265                      270  
 His Leu His Asn Leu His Thr Glu Leu Phe Thr Thr Thr Thr Arg Leu  
                                  275                      280                      285  
 Pro Pro Tyr Ala Thr Arg Trp Pro Pro Arg Pro Pro Ala Gly Ala Pro  
                                  290                      295                      300  
 Gly Thr Arg Arg  
 305

<210> 997

<211> 320

<212> DNA

<213> Homo sapiens

<400> 997

aaatttaata ccatagcctt ctcttggttg atccttctag gcatgagtta tggcattaaa  
 60  
 acgggcatcc atcttggtgt cgatategta cttaatgccg tgcctaaacg agtatcaaga  
 120  
 gccttgctct tgttcggtgc ctttgccgct attatgtacg gtctcattct acttgattct  
 180  
 acctgggttag ccttactcgg tatcgatgta cgaggtggtg ccatcgaata ttgggcgaag  
 240  
 atgttcaaaa taggtattgg tactgaagag cttcggttacc ctatctttat gcaagatatg  
 300  
 ttgatttgc gccacgcgt  
 320

<210> 998

<211> 106

<212> PRT

<213> Homo sapiens

<400> 998

Lys Phe Asn Thr Ile Ala Phe Ser Trp Leu Ile Leu Leu Gly Met Ser  
 1                      5                      10                      15  
 Tyr Gly Ile Lys Thr Gly Ile His Leu Gly Val Asp Ile Val Leu Asn  
                                  20                      25                      30  
 Ala Val Pro Lys Arg Val Ser Arg Ala Leu Ser Leu Phe Gly Ala Phe  
                                  35                      40                      45  
 Ala Ala Ile Met Tyr Gly Leu Ile Leu Leu Asp Ser Thr Trp Leu Ala  
                                  50                      55                      60  
 Leu Leu Gly Ile Asp Val Arg Gly Gly Ala Ile Glu Tyr Trp Ala Lys  
 65                      70                      75                      80  
 Met Phe Lys Ile Gly Ile Gly Thr Glu Glu Leu Arg Tyr Pro Ile Phe  
                                  85                      90                      95  
 Met Gln Asp Met Phe Asp Leu Arg Pro Arg  
                                  100                      105

<210> 999

<211> 401

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 999

acgcgttcag gcggttaaca atcgcgctaa gaagctgacc aaggaaaatg tcggcatggt  
 60  
 acatctgagc aagagcttca tcggtgttta tctctactca gaaggcaagt ttgtgaccag  
 120  
 caactatctc aatcgaggct acaaggacat tctgagctat gcagacgatg ctagtctttt  
 180  
 gcaaaagcct ccagcagtgg ctccagatga tctggataca ggtctcttga agagggcctt  
 240  
 ggatgagtgg gtggctgatg ctaagaacca cattctcaat actgaaaact tcttttagcgg  
 300  
 gtcaaccggt ctcaacattg acagtttcta cgtctttggg gaccaagaca tctgctggca  
 360  
 gttggcagct attctgaagc agagcatgaa tcgggaattg t  
 401

&lt;210&gt; 1000

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1000

Met Val His Leu Ser Lys Ser Phe Ile Gly Val Tyr Leu Tyr Ser Glu  
 1 5 10 15  
 Gly Lys Phe Val Thr Ser Asn Tyr Leu Asn Arg Gly Tyr Lys Asp Ile  
 20 25 30  
 Leu Ser Tyr Ala Asp Asp Ala Ser Leu Leu Gln Lys Pro Pro Ala Val  
 35 40 45  
 Ala Ser Asp Asp Leu Asp Thr Gly Leu Leu Lys Arg Ala Leu Asp Glu  
 50 55 60  
 Trp Val Ala Asp Ala Lys Asn His Ile Leu Asn Thr Glu Asn Phe Phe  
 65 70 75 80  
 Ser Gly Ser Thr Gly Leu Asn Ile Asp Ser Phe Tyr Val Phe Gly Asp  
 85 90 95  
 Gln Asp Ile Cys Trp Gln Leu Ala Ala Ile Leu Lys Gln Ser Met Asn  
 100 105 110  
 Arg Glu Leu  
 115

&lt;210&gt; 1001

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1001

cgcggtattg caatgcgcct ggtgccgaat gctaaacctg ctcttgattg cccggtactg  
 60  
 ttcccttatg ccctaatagc ggtgattgtt ggcttcctgg ccactaccgt tggttcaatt  
 120  
 atcggatga ttgtcttccc gctgtttggg ctggcgatga tccttcggg tctgctaact  
 180

aacttcttcg ctggtggtgc cgctggagtc tttggcaacg cgatgggagg acgtaaagg  
 240  
 gcaattattg gcggcgtagt gcaagggtg tttatcaccc tgttaccagc gatgctaac  
 300  
 cccttactgg aaaccttcgg cttcaaagge gtcaccttca gtgattccga t  
 351

<210> 1002

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1002

Arg	Gly	Ile	Ala	Met	Arg	Leu	Val	Pro	Asn	Ala	Lys	Pro	Ala	Leu	Asp
1				5				10					15		
Cys	Pro	Val	Leu	Phe	Pro	Tyr	Ala	Pro	Asn	Ala	Val	Ile	Val	Gly	Phe
		20						25					30		
Leu	Ala	Thr	Thr	Val	Gly	Ser	Ile	Ile	Gly	Met	Ile	Val	Phe	Pro	Leu
		35					40					45			
Phe	Gly	Leu	Ala	Met	Ile	Leu	Pro	Gly	Leu	Leu	Thr	Asn	Phe	Phe	Ala
	50					55					60				
Gly	Gly	Ala	Ala	Gly	Val	Phe	Gly	Asn	Ala	Met	Gly	Gly	Arg	Lys	Gly
65				70				75						80	
Ala	Ile	Ile	Gly	Gly	Val	Val	His	Gly	Leu	Phe	Ile	Thr	Leu	Leu	Pro
			85					90					95		
Ala	Met	Leu	Ile	Pro	Leu	Leu	Glu	Thr	Phe	Gly	Phe	Lys	Gly	Val	Thr
		100						105					110		
Phe	Ser	Asp	Ser	Asp											
		115													

<210> 1003

<211> 444

<212> DNA

<213> Homo sapiens

<400> 1003

acgcgtcctc ctttagtcga tcgcgaatat gataggcgaa gcgacgtgat ggtgtgacgc  
 60  
 acgagcactg ccccatctcc taggcttagg gttatgcaga ctcccatcga cgctacctcc  
 120  
 acccccgcac ggggcacact ctccggccta aagtccegcg tcgctgacgg gccacataaa  
 180  
 ctgcgccggt tggtcgacgc cgaccctcac cgcgctgagc gctacacctt tgacgtcgcg  
 240  
 gatttgcacg tcgatttata gaagaacctc cttaccgacg agattcgtga cgctctcctc  
 300  
 gaactggctg cgcagatgcg cgtcaccgag cgtcgtgacg cgatgtatgc cggtagacac  
 360  
 atcaacgtca ccgaggaccg cgccgtcctc cataccgcgc tgtgtcgtcc ccgcactgac  
 420  
 gagctgcatg ttgacgggtca ggat  
 444

<210> 1004

<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1004  
 Met Gln Thr Pro Ile Asp Ala Thr Ser Thr Pro Ala Trp Gly Thr Leu  
 1 5 10 15  
 Ser Gly Leu Lys Ser Arg Phe Ala Asp Gly Pro His Lys Leu Arg Arg  
 20 25 30  
 Leu Phe Asp Ala Asp Pro His Arg Ala Glu Arg Tyr Thr Phe Asp Val  
 35 40 45  
 Ala Asp Leu His Val Asp Leu Ser Lys Asn Leu Leu Thr Asp Glu Ile  
 50 55 60  
 Arg Asp Ala Leu Leu Glu Leu Ala Ala Gln Met Arg Val Thr Glu Arg  
 65 70 75 80  
 Arg Asp Ala Met Tyr Ala Gly Glu His Ile Asn Val Thr Glu Asp Arg  
 85 90 95  
 Ala Val Leu His Thr Ala Leu Cys Arg Pro Arg Thr Asp Glu Leu His  
 100 105 110  
 Val Asp Gly Gln Asp  
 115

<210> 1005  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 1005  
 ccattggccat tcctctggtg actgcatcca gtccgatgga tttaaaccacc cccaatgtgc  
 60  
 tgggtgactcc caagtttaca cctccagecca gggcttctct cctgggtttg cataccacc  
 120  
 tatctatctg ccttagccac tcgtgtctga cgagcacctc acacctccag aggctctca  
 180  
 tttcttccca tgctgcttc tccacactc ctccctctca catgagggca acttcatcct  
 240  
 cccagttgct caggcccaa acctccatca gttttgactc ttctctcgca cactactcg  
 299

<210> 1006  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 1006  
 Met Ala Ile Pro Leu Val Thr Ala Ser Ser Pro Met Asp Leu Asn Thr  
 1 5 10 15  
 Pro Asn Val Leu Val Thr Pro Lys Phe Thr Pro Pro Ala Arg Ala Ser  
 20 25 30  
 Leu Leu Gly Leu His Thr His Leu Ser Ile Cys Leu Ser His Ser Cys  
 35 40 45  
 Leu Thr Ser Thr Ser His Leu Gln Arg Leu Leu Ile Ser Ser His Ala  
 50 55 60  
 Cys Phe Ser His Thr Pro Pro Ser His Met Arg Ala Thr Ser Ser Ser

973

ngccttcacg gctgntatgc ctggcctcat ccccatccct ggcacccgtg acgatagcca  
 60  
 cattccactg gtgtttcccc aggaaagcca accctacctg catctcagca gagcttccac  
 120  
 ggagttggaa ccccgctccg agaggggtgtg ggctcagggg ccaggggtca cacaaactcc  
 180  
 agaaggagga cgtagtgtgt ttgcaaggct gtcctttgcc ctggttgaat aaccttcggt  
 240  
 ctgccccgag aggaacgtgg gcattaggct gcacccgcag gaagccatgt attttctgag  
 300  
 aaacttgccc catggtgcag atct  
 324

<210> 1010

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1010

Met	Gly	Gln	Val	Ser	Gln	Lys	Ile	His	Gly	Phe	Leu	Arg	Val	Gln	Pro
1				5					10					15	
Asn	Ala	His	Val	Pro	Leu	Gly	Ala	Asp	Arg	Arg	Leu	Phe	Asn	Gln	Gly
		20					25						30		
Lys	Gly	Gln	Pro	Cys	Lys	Pro	Thr	Thr	Ser	Ser	Phe	Trp	Ser	Leu	Cys
		35					40					45			
Asp	Pro	Trp	Pro	Leu	Ser	Pro	His	Pro	Leu	Gly	Ala	Gly	Phe	Gln	Leu
	50					55					60				
Arg	Gly	Ser	Ser	Ala	Glu	Met	Gln	Val	Gly	Leu	Ala	Phe	Leu	Gly	Lys
65					70					75				80	
His	Gln	Trp	Asn	Val	Ala	Ile	Val	Thr	Gly	Ala	Arg	Asp	Gly	Asp	Glu
			85						90					95	
Ala	Arg	His	Xaa	Ser	His	Glu	Gly								
						100									

<210> 1011

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1011

ctgcagaaaa ggaggggggtt cccatgccaa ggcagaactg tctgggacag acgctgcccg  
 60  
 gatccctgcg gctgcctgca ctctggacca cgagctctga gagcagcagg ttgagggccc  
 120  
 gtgggcagca gctcggaggc tccgcgaggt gcaggagacg caggcatggc cggtagagctg  
 180  
 actcctgagg aggaggccca gtacaaaaag gctttctccg cggttgacac ggatggaaac  
 240  
 ggcacatca atgccagga gctgggcgcg gcgctgaagg ccacgggcaa gaacctctcg  
 300  
 gaggeccagc taaagaaact catctccgag  
 330

<210> 1012



<211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 1012  
 Met Ala Gly Glu Leu Thr Pro Glu Glu Glu Ala Gln Tyr Lys Lys Ala  
 1 5 10 15  
 Phe Ser Ala Val Asp Thr Asp Gly Asn Gly Thr Ile Asn Ala Gln Glu  
 20 25 30  
 Leu Gly Ala Ala Leu Lys Ala Thr Gly Lys Asn Leu Ser Glu Ala Gln  
 35 40 45  
 Leu Lys Lys Leu Ile Ser Glu  
 50 55

<210> 1013  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 1013  
 nacttgacaca tcgtggtggc gtcgctgcgt gcggcactga caatgtgact ggcgattcg  
 60  
 tggcggcgctc tcctcgtcgc cgggagcggc gaggaaggat taacgatgac cagcgacgtc  
 120  
 cccgggattg gtcgaacgc cgccactttg gcgcgttccc aggetcgcag tgacaaggtc  
 180  
 gaggctgatt tggcgggtcca tcccgacaag tggcgcattc tgggggggga ccgtcctact  
 240  
 ggcagcctgc acatcgggtca ctacttcggg tcgctggcga atcgggtacg cgtgcagaac  
 300  
 aagggcattg agtctttcct tgctcgtcgt gactaccagg ttatctatga ccgcgggggg  
 360  
 ggtggtgacc tgcaggccaa tgttatgtcg aatgtgcgcg attacctggc aatcggcatt  
 420  
 gacccaacgc gt  
 432

<210> 1014  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1014  
 Met Thr Ser Asp Val Pro Gly Ile Gly Ser Asn Ala Ala Thr Leu Ala  
 1 5 10 15  
 Arg Ser Gln Ala Arg Ser Asp Lys Val Glu Ala Asp Leu Ala Val His  
 20 25 30  
 Pro Asp Lys Trp Arg Ile Leu Gly Gly Asp Arg Pro Thr Gly Ser Leu  
 35 40 45  
 His Ile Gly His Tyr Phe Gly Ser Leu Ala Asn Arg Val Arg Val Gln  
 50 55 60  
 Asn Lys Gly Ile Glu Ser Phe Leu Val Val Ala Asp Tyr Gln Val Ile  
 65 70 75 80  
 Tyr Asp Arg Gly Gly Gly Gly Asp Leu Gln Ala Asn Val Met Ser Asn

85 90 95  
 Val Ala Asp Tyr Leu Ala Ile Gly Ile Asp Pro Thr Arg  
 100 105

<210> 1015  
 <211> 467  
 <212> DNA  
 <213> Homo sapiens

<400> 1015  
 nngaattcga tggctgtgaa aggtcgagct cttaagtgtt ttcatatccc ctgtgtgggt  
 60  
 gaaaacttcc cgatgaaagc gcgcacgggt gaagagctga aagaattgga aagagtttta  
 120  
 cagcaaaaaga agattgaagc agagtgtctt aaactacgga aggaaattgt agaggctcag  
 180  
 tctggagtta agttgattaa acagcgtcac gaagaggatg atgaagaaga ggaagaggaa  
 240  
 gacaagacag taaaatatag caatttgccc aattacctgc ttggtagtct gagtactgat  
 300  
 tttggggtag atacctcttt attgtcaagc caattggagc ttcattccag agaagagaaa  
 360  
 atcaacaaaa ttatattatt gaaagataac attacaagg taaaaactgt tttcaataat  
 420  
 gagtttgacg ctgcatataa acaaaaagag tttgaaattg cacgcgt  
 467

<210> 1016  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 1016  
 Xaa Asn Ser Met Ala Val Lys Gly Arg Ala Leu Lys Cys Phe His Ile  
 1 5 10 15  
 Pro Cys Val Val Glu Asn Phe Pro Met Lys Ala Arg Thr Val Glu Glu  
 20 25 30  
 Leu Lys Glu Leu Glu Arg Val Leu Gln Gln Lys Lys Ile Glu Ala Glu  
 35 40 45  
 Cys Leu Lys Leu Arg Lys Glu Ile Val Glu Ala Gln Ser Gly Val Lys  
 50 55 60  
 Leu Ile Lys Lys Arg His Glu Glu Asp Asp Glu Glu Glu Glu Glu  
 65 70 75 80  
 Asp Lys Thr Val Lys Tyr Ser Asn Leu Pro Asn Tyr Leu Leu Gly Ser  
 85 90 95  
 Leu Ser Thr Asp Phe Gly Val Asp Thr Ser Leu Leu Ser Ser Gln Leu  
 100 105 110  
 Glu Leu His Ser Arg Glu Glu Lys Ile Asn Gln Ile Ile Leu Leu Lys  
 115 120 125  
 Asp Ile Ile Tyr Lys Val Lys Thr Val Phe Asn Asn Glu Phe Asp Ala  
 130 135 140  
 Ala Tyr Lys Lys Lys Glu Phe Glu Ile Ala Arg  
 145 150 155

<210> 1017  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 1017  
 acgcgtggct gggtgggtat gtggaaccat gtgcgcgcta atgagaagga tgcgaagggg  
 60  
 aacattaaag tgggtcgccc cggtacttt gcggaggta tggatttcta tgcgcattat  
 120  
 ctgaaggggtg cggttaccgc ttccgctccg aattttattg tgcaggataa tacgggcccgt  
 180  
 tggcgtgttc agtcgtcgtg gccgcagccg aatgcactg ttacttttgc gggacccgcg  
 240  
 ggcattgtcc gctacggtac gacgttggcg gccgcacgc atgggaatgg tcaggctatt  
 300  
 ccgcaggcgg atgcacagtc tcttaaccgc gagaa  
 335

<210> 1018  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 1018  
 Met Trp Asn His Val Arg Ala Asn Glu Lys Asp Ala Lys Gly Asn Ile  
 1 5 10 15  
 Lys Val Gly Arg Pro Gly Tyr Phe Ala Glu Val Met Asp Phe Tyr Ala  
 20 25 30  
 His Tyr Leu Lys Gly Ala Val Thr Arg Phe Arg Pro Asn Phe Ile Val  
 35 40 45  
 Gln Asp Asn Thr Gly Arg Trp Arg Val Gln Ser Ser Trp Pro Gln Pro  
 50 55 60  
 Asn Arg Thr Val Thr Phe Ala Gly Pro Arg Gly Ile Val Arg Tyr Gly  
 65 70 75 80  
 Thr Thr Leu Ala Ala Arg Thr His Gly Asn Gly Gln Ala Ile Pro Gln  
 85 90 95  
 Ala Asp Ala Gln Ser Leu Asn Arg Glu  
 100 105

<210> 1019  
 <211> 454  
 <212> DNA  
 <213> Homo sapiens

<400> 1019  
 acgcgtgaag gggtagtcgt agtagaagtc gtccacaaac acgggccccg gcagggtccag  
 60  
 ctctggagcc tcttctctca tggcggtgcc catggtgcct ggcttgggtg atgaggcggg  
 120  
 tgaagggcgt ggggccaggt ggtgcgggat gaagtcagcc tcgttgaaga gtcgtgggt  
 180  
 ggaggagccg ctgcctgagc cttcagggcc cagtgtgcc aggggccacc gacagagtgg  
 240

cagagagcag gtgacttcct ggcaactgcgg agcgaggacc cggagaagta cttcctcaat  
 300  
 ggtggctgga ccattccagt gaacggggac taccaggtgg cagggaccac cttcacatac  
 360  
 gcacgcaggg gcaactggga gaacctcacg tccccgggtc ccaccaagga gcctgtctgg  
 420  
 atccagctgc tgttccagga gagcaacctt gggg  
 454

<210> 1020

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1020

Met	Ala	Leu	Pro	Met	Val	Pro	Gly	Leu	Gly	Asp	Glu	Ala	Gly	Glu	Gly
1			5					10						15	
Arg	Gly	Ala	Arg	Trp	Cys	Gly	Met	Lys	Ser	Ala	Ser	Leu	Lys	Ser	Ser
		20					25						30		
Trp	Leu	Glu	Glu	Pro	Leu	Pro	Glu	Pro	Ser	Gly	Pro	Ser	Val	Pro	Arg
		35					40					45			
Gly	His	Arg	Gln	Ser	Gly	Arg	Glu	Gln	Val	Thr	Ser	Trp	His	Cys	Gly
	50				55					60					
Ala	Arg	Thr	Arg	Arg	Ser	Thr	Ser	Ser	Met	Val	Ala	Gly	Pro	Ser	Ser
65					70					75				80	
Gly	Thr	Gly	Thr	Thr	Arg	Trp	Gln	Gly	Pro	Pro	Ser	His	Thr	His	Ala
			85					90						95	
Gly	Ala	Thr	Gly	Arg	Thr	Ser	Arg	Pro	Arg	Val	Pro	Pro	Arg	Ser	Leu
			100					105					110		
Ser	Gly	Ser	Ser	Cys	Cys	Ser	Arg	Arg	Ala	Thr	Leu	Gly			
			115					120					125		

<210> 1021

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1021

cagctgtgtc gtgacctcct gtagaccaga gagaggtaga gcatgaaaaa tgctcattga  
 60  
 gccgagatta tctgacagga ccaaagcata taaagttgac tgaagcagga gcaaacacgc  
 120  
 tggttgaggg tcaagtgtct gggcagcagc aacaacaaac caaaaaaag ccctttgaac  
 180  
 tcccttaatg ttgcccaaag gttctggtag agaacaagtc acatgcctaa gaaggtcttt  
 240  
 taaagggcac tcttgagtt tcagcatttg gtccggggaa ttgcacaagg ctctgcttaa  
 300  
 atgcagagct ctttctagca tcttcatatt caaggcggaa aaactgagct tggcgaggaa  
 360  
 ccctgt  
 366

<210> 1022

<211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1022  
 Met Lys Met Leu Glu Arg Ala Leu His Leu Ser Arg Ala Leu Cys Asn  
 1 5 10 15  
 Ser Pro Asp Gln Met Leu Lys Leu Gln Glu Cys Pro Leu Lys Asp Leu  
 20 25 30  
 Leu Arg His Val Thr Cys Ser Leu Pro Glu Pro Leu Gly Asn Ile Lys  
 35 40 45  
 Gly Val Gln Arg Ala Phe Phe Trp Phe Val Val Ala Ala Ala Pro Ala  
 50 55 60  
 Leu Asp Pro Gln Pro Ala Cys Leu Leu Leu Leu Gln Ser Thr Leu Tyr  
 65 70 75 80  
 Ala Leu Val Leu Ser Asp Asn Leu Gly Ser Met Ser Ile Phe His Ala  
 85 90 95  
 Leu Pro Leu Ser Gly Leu Gln Glu Val Thr Thr Gln Leu  
 100 105

<210> 1023  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<400> 1023  
 gccgggcttc gggctctctga agcgatcaac ctggccgact cggatgcaga tctggacggc  
 60  
 ggcatactga ccatacagca gaccaagttt ggcaagtccc gcatgggtgcc gctacacccc  
 120  
 agcgtgatcg gtccgatggc agcctaccgg gccttgcgcc gccagtacgt gcctgcgaag  
 180  
 ccgcagatga cattcttcgt gggctcgcgt ggcgtgcacc ggggtgaacc gctgggagat  
 240  
 aggcaggtgc atcgagtgtt ctgtcagctg cgcgagcaat tgggttggtat cgatcgcggc  
 300  
 ggccatggcc gaccgcgggt gcatgacctg cgccatagct tcgccgtgag acggatgatc  
 360  
 ctgtggcacc agcagggagc gaaccttgac caacgaatgc tggccctgtc cacgtacatg  
 420  
 ggccac  
 426

<210> 1024  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 1024  
 Ala Gly Leu Arg Val Ser Glu Ala Ile Asn Leu Ala Asp Ser Asp Ala  
 1 5 10 15  
 Asp Leu Asp Gly Gly Ile Leu Thr Ile Gln Gln Thr Lys Phe Gly Lys  
 20 25 30  
 Ser Arg Met Val Pro Leu His Pro Ser Val Ile Gly Pro Met Ala Ala

```

      35      40      45
Tyr Arg Ala Leu Arg Arg Gln Tyr Val Pro Ala Lys Pro Gln Met Thr
  50      55      60
Phe Phe Val Gly Ser Arg Gly Val His Arg Gly Glu Pro Leu Gly Asp
  65      70      75      80
Arg Gln Val His Arg Val Phe Cys Gln Leu Arg Glu Gln Leu Gly Trp
      85      90      95
Ile Asp Arg Gly Gly His Gly Arg Pro Arg Val His Asp Leu Arg His
      100      105      110
Ser Phe Ala Val Arg Arg Met Ile Leu Trp His Gln Gln Gly Ala Asn
      115      120      125
Leu Asp Gln Arg Met Leu Ala Leu Ser Thr Tyr Met Gly His
      130      135      140

```

&lt;210&gt; 1025

&lt;211&gt; 518

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1025

```

naccgtggt gcgcgcaggt ggccgcgcgg tccctttgct ccctgcgcaa gccggagggg
  60
tgcccagaag gctaccacta gcctcagcga aggggtgcgcc ctgagagccg ggtagcctcg
  120
gatagcggcg ctgcgtacgc gatgatggat gagccgtggt gggaagggcg cgtcgcctcg
  180
gacgtccact gcaccctgcg cgagaaggaa ctgaagctgc ccaccttccg agccactcc
  240
ccactcctga agagccgcgc gttcttcgtg gacatcctga ccctgctgag cagccactgc
  300
cagctctgcc ctgcagcccg gcacctggcc gtctacctgc tggaccactt catggatcgc
  360
tacaacgtca ccacctccaa gcagctctac accgtggccg tctcctgcct cctgcttgca
  420
agtaagtctg aggatcgcca agaccacgtc cccaagttgg agcaaataaa cagcagcagg
  480
atcctgagca gccagaactt caccctcacc aagaagga
  518

```

&lt;210&gt; 1026

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1026

```

Met Met Asp Glu Pro Trp Trp Glu Gly Arg Val Ala Ser Asp Val His
  1      5      10      15
Cys Thr Leu Arg Glu Lys Glu Leu Lys Leu Pro Thr Phe Arg Ala His
      20      25      30
Ser Pro Leu Leu Lys Ser Arg Arg Phe Phe Val Asp Ile Leu Thr Leu
      35      40      45
Leu Ser Ser His Cys Gln Leu Cys Pro Ala Ala Arg His Leu Ala Val
      50      55      60
Tyr Leu Leu Asp His Phe Met Asp Arg Tyr Asn Val Thr Thr Ser Lys

```

```

65          70          75          80
Gln Leu Tyr Thr Val Ala Val Ser Cys Leu Leu Leu Ala Ser Lys Phe
      85          90          95
Glu Asp Arg Glu Asp His Val Pro Lys Leu Glu Gln Ile Asn Ser Thr
      100          105          110
Arg Ile Leu Ser Ser Gln Asn Phe Thr Leu Thr Lys Lys
      115          120          125

```

&lt;210&gt; 1027

&lt;211&gt; 465

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1027

```

ggcccaaaag tcatcaaaga aaagctgaca caggagctga aggaccacaa cgccaccagc
60
atcctgcagc agctgccgct gctcaaggcc atgcgggaaa agccagccgg aggcattcct
120
gtgctgggca gcttggtgaa caccngtcct gaagcacatc atnctggct gaaggtcatc
180
acagctaaca tctccagct gcaggtgaag ccctcgcca atgaccagga gctgctagtc
240
aagatcccc tggacatggt ggctggatc aacacgccc tggtaagac catcgtggag
300
ttccacatga cgactgaggc ccaagccacc atccgcatgg acaccagtgc aagtggcccc
360
accgcctgg tctcagtga ctgtgccacc agccatggga gctgcat ccaactgctg
420
cataagctct cttcaagct gaacgcctca gctaagcagg tcatg
465

```

&lt;210&gt; 1028

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1028

```

Gly Pro Lys Val Ile Lys Glu Lys Leu Thr Gln Glu Leu Lys Asp His
1          5          10          15
Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Lys Ala Met Arg
      20          25          30
Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser Leu Val Asn Thr
      35          40          45
Xaa Pro Glu Ala His His Xaa Trp Leu Lys Val Ile Thr Ala Asn Ile
      50          55          60
Leu Gln Leu Gln Val Lys Pro Ser Ala Asn Asp Gln Glu Leu Leu Val
65          70          75          80
Lys Ile Pro Leu Asp Met Val Ala Gly Phe Asn Thr Pro Leu Val Lys
      85          90          95
Thr Ile Val Glu Phe His Met Thr Thr Glu Ala Gln Ala Thr Ile Arg
      100          105          110
Met Asp Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys
      115          120          125
Ala Thr Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser

```

130 135 140  
 Phe Lys Leu Asn Ala Ser Ala Lys Gln Val Met  
 145 150 155

<210> 1029  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 1029  
 accgctgaag ggaaactgtc ctcacagatg agtgtgaggg ttcaaaaaga tactgcctgc  
 60  
 caagcactgg ccacaaatgc ctggcagaac aactgtcat aagtgtgtag ttgtgttat  
 120  
 tattactaac caagtgagga aaattatccc tagcaggtcc agatgaccgt gtgcatgaat  
 180  
 cacagggaga ccctaaagga tttcctcctg taaagctctt tccccaccta ttgtctactg  
 240  
 cctgaaattg ctttagcagg aaacagaatc tctcatgccca caagtgagca taaagtttaa  
 300  
 aatgtaaatg ctctaggaaa aggcaactca tctcttaa at tctctccaag gttcaaatcc  
 360  
 tttccaaaga ggaggctttt gtataagtca gaaggcccag tcctgaagg tcatggaaaa  
 420  
 ggtcatgaca cacggagggg gtgtcaaagg gagactggga aactgaagat gaagctagc  
 479

<210> 1030  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 1030  
 Met Ser Cys Leu Phe Leu Glu His Leu His Phe Lys Leu Tyr Ala His  
 1 5 10 15  
 Leu Trp His Glu Arg Phe Cys Phe Leu Leu Lys Gln Phe Gln Ala Val  
 20 25 30  
 Ala Asn Arg Trp Gly Lys Ser Phe Thr Gly Gly Asn Pro Leu Gly Ser  
 35 40 45  
 Pro Cys Asp Ser Cys Thr Arg Ser Ser Gly Pro Ala Arg Asp Asn Phe  
 50 55 60  
 Pro His Leu Val Ser Asn Asn Asn Asn Tyr Thr Leu Met Ser Ser  
 65 70 75 80  
 Cys Ser Ala Arg His Leu Trp Pro Val Leu Gly Arg Gln Tyr Leu Phe  
 85 90 95  
 Glu Pro Ser His Ser Ser Val Arg Thr Val Ser Leu His Ala  
 100 105 110

<210> 1031  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 1031



nacgcgtttt atgtcagcgt tgaattggaa gacggcaagt ctatcgccat gctgccccag  
 60  
 gcagatggct ggtttgaagt ggaggtgaag tgcccggcgg gcactcacta ccgtataaac  
 120  
 atcgacggcg aaaccgatgt acccgaccgg gcattccagg cgcaagccaa cgatgtgcat  
 180  
 ggggtggagcg tcgtcgtcga cccgctcgcc tatcaatggc gacaccctaa ctggcaaggc  
 240  
 cgcccctggc atgagggcgt gatttacgag ctgcacgttg gcgtactggg cgggtacggc  
 300  
 gctgttgaac agcaactgcc gc  
 322

<210> 1032

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1032

Xaa	Ala	Phe	Tyr	Val	Ser	Val	Glu	Leu	Glu	Asp	Gly	Lys	Ser	Ile	Ala
1				5					10					15	
Met	Leu	Pro	Gln	Ala	Asp	Gly	Trp	Phe	Glu	Val	Glu	Val	Lys	Cys	Pro
			20					25					30		
Ala	Gly	Thr	His	Tyr	Arg	Tyr	Asn	Ile	Asp	Gly	Glu	Thr	Asp	Val	Pro
		35					40					45			
Asp	Pro	Ala	Ser	Arg	Ala	Gln	Ala	Asn	Asp	Val	His	Gly	Trp	Ser	Val
	50					55					60				
Val	Val	Asp	Pro	Leu	Ala	Tyr	Gln	Trp	Arg	His	Pro	Asn	Trp	Gln	Gly
65					70					75				80	
Arg	Pro	Trp	His	Glu	Ala	Val	Ile	Tyr	Glu	Leu	His	Val	Gly	Val	Leu
			85						90					95	
Gly	Gly	Tyr	Ala	Ala	Val	Glu	Gln	Gln	Leu	Pro					
			100					105							

<210> 1033

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1033

tgcgtccacc ggggtgacct cctgactgcc tcagtcacga ttccttatgg tcgaagtgtc  
 60  
 acagcgccaa gggttgtgag gagggccctt cgcgggtcac ggataggtcc aaggtggcac  
 120  
 aattcacatt caaatccatc acttttcaca taattgctgt taatatgaac gtcattgagtc  
 180  
 gttgttgctc gcggttgca gtgggactcc ccatacacgg cagcgagaca tggaggaacc  
 240  
 atgggactaa ggatcgttgt cgccgctgat ccggcggcag tcgagtacaa ggatgtcgtc  
 300  
 aaggctgacc tggaagcgga ttgcgagtc gatgacgtta tcgacgtcgg cgttcaggct  
 360  
 ggtgacgaca cctctaccc gcgcacggc atcaaggag ctcacgtcat caaggacgga  
 420

aaagccgac gaggaatctt tttctgcggc accgggatgg gcatggccat cacggccaac  
 480  
 aaggtgccag gcattcgcgc ctgcaccgcc cagcactcct tctccgtaga gcggctcatc  
 540  
 atgtccaacg acgcccacgt gctatgcctc ggccaacgc  
 579

<210> 1034

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1034

Met	Gly	Leu	Arg	Ile	Val	Val	Ala	Ala	Asp	Pro	Ala	Ala	Val	Glu	Tyr
1				5					10					15	
Lys	Asp	Val	Val	Lys	Ala	Asp	Leu	Glu	Ala	Asp	Ser	Arg	Val	Asp	Asp
		20						25					30		
Val	Ile	Asp	Val	Gly	Val	Gln	Ala	Gly	Asp	Asp	Thr	Leu	Tyr	Pro	Arg
		35					40					45			
Ile	Gly	Ile	Lys	Gly	Ala	His	Val	Ile	Lys	Asp	Gly	Lys	Ala	Asp	Arg
	50					55					60				
Gly	Ile	Phe	Phe	Cys	Gly	Thr	Gly	Met	Gly	Met	Ala	Ile	Thr	Ala	Asn
65					70					75				80	
Lys	Val	Pro	Gly	Ile	Arg	Ala	Cys	Thr	Ala	His	Asp	Ser	Phe	Ser	Val
			85					90					95		
Glu	Arg	Leu	Ile	Met	Ser	Asn	Asp	Ala	His	Val	Leu	Cys	Leu	Gly	Gln
			100					105					110		

Arg

<210> 1035

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1035

nacgcgtgca atgtgtgtgt gtgtatgnga ccatgtctct gtgtgtgtat gngcatatgt  
 60  
 gtgtgtatan gaatgtgtgt atgtgtantg gaatgtgtgt gtgtantgga agctgtgtgc  
 120  
 atatgtnaat gtctgtgtgc atgtacgnga atgtgcgcgt gtatggaatg tatctgtgta  
 180  
 tgtgtatgga ccgtttgtgt gattatgcaa tatgtccgtg tgtgcgtatg gagtgtctca  
 240  
 gtatggcatg tgtgtgtgta tctactgtgc gtctctgtgt gtgtantgac atgcatatgt  
 300  
 atagaaagcg tctgcgctgt gtgcatgtgt gtcagtatcg aacgagtcgg agatgtggta  
 360  
 atn  
 363

<210> 1036

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1036

```

Xaa Ala Cys Asn Val Cys Val Cys Met Xaa Pro Cys Leu Cys Val Cys
 1           5           10           15
Met Xaa Ile Cys Val Cys Ile Xaa Met Cys Val Cys Val Xaa Glu Cys
      20           25           30
Val Cys Val Xaa Glu Ala Val Cys Ile Cys Xaa Cys Leu Cys Ala Cys
      35           40           45
Thr Xaa Met Cys Ala Cys Met Glu Cys Ile Cys Val Cys Val Trp Thr
      50           55           60
Val Cys Val Ile Met Gln Tyr Val Arg Val Cys Val Trp Ser Val Ser
      65           70           75           80
Val Trp His Val Cys Val Tyr Leu Leu Cys Val Ser Val Cys Val Xaa
      85           90           95
Thr Cys Ile Cys Ile Glu Ser Val Cys Ala Val Cys Met Cys Val Ser
      100          105          110
Ile Glu Arg Val Gly Asp Val Val Xaa
      115          120

```

<210> 1037

<211> 5832

<212> DNA

<213> Homo sapiens

<400> 1037

```

ccttctcctg ggggccagat gcatgctgga atcagtagct ttcagcagag taactcaagt
60
gggacttacg gtccacagat gagccagtat ggaccacaag gtaactactc cagaccccca
120
gcgtatagtg ggggtgccag tgcaagctac agcgggccag ggcccgggtat gggtatcagt
180
gccacaacc agatgcatgg acaagggcca agccagccat gtgggtgctgt gcccctggga
240
cgaatgccat cagctgggat gcagaacaga ccatttctctg gaaatatgag cagcatgacc
300
cccagttctc ctggcatgtc tcagcaggga gggccaggaa tggggccgcc aatgccaaact
360
gtgaaccgta aggcacagga ggcagccgca gcagtgatgc aggctgctgc gaactcagca
420
caaagcaggc aaggcagttt ccccggcatg aaccagagtg gacttatggc ttccagctct
480
ccctacagcc agcccatgaa caacagctct agcctgatga acacgcaggc gccgccctac
540
agcatggcgc ccgccatggt gaacagctcg gcagcatctg tgggtcttgc agatatgatg
600
tctcctggtg aatccaaact gcccctgcct ctcaaagcag acggcaaaga agaaggcact
660
ccacagcccg agagcaagtc aaaggatagc tacagctctc aggggtatttc tcagccccc
720
acccaggca acctgccagt ccttcccca atgtcccca gctctgctag catctctca
780
tttcatggag atgaaagtga tagcattagc agccagggt ggccaaagac tccatcaagc
840

```

cctaagtcca gctcctccac cactactggg gagaagatca cgaagggtga cgagctgggg  
900  
aatgagccag agagaaagct ctgggtcgac cgatacctca cttcatgga agagagaggc  
960  
tctctgtct caagtctgcc tgccgtgggc aagaagcccc tggacctgtt ccgactctac  
1020  
gtctgcgtca aagagatcgg gggtttgcc caggttaata aaaacaagaa gtggcgtgag  
1080  
ctggcaacca acctaaacgt tggcacctca agcagtgcag cgagctccct gaaaaagcag  
1140  
tatattcagt acctgtttgc ctttgagtgc aagatcgaac gtgggggagga gccccgcgcg  
1200  
gaagtcttca gcaccgggga caccaaaaag cagcccaagc tccagccgcc atctctgct  
1260  
aactcgggat ccttgcaagg ccacagacc cccagtcaa ctggcagcaa ttccatggca  
1320  
gaggttccag gtgacctgaa gccacctacc ccagctcca cccctcacgg ccagatgact  
1380  
ccaatgcaag gtggaagaag cagtacaatc agtgtgcacg accattctc agatgtgagt  
1440  
gattcactct tcccgaacg gaactccatg actccaaacg cccctacca gcagggcatg  
1500  
agcatgcccg atgtgatggg caggatgccc tatgagccca acaaggaccc ctttggggga  
1560  
atgagaaaag tgccctggaag cagcagagccc tttatgacgc aaggacagat gcccacacg  
1620  
agcatgcagg acatgtacaa ccaaagtccc tccggagcaa tgtctaacct gggcatgggg  
1680  
cagcgccagc agtttcccta tggagccagt tacgaccgaa ggcataaacc ttatgggcag  
1740  
cagtatccag gccaaagccc tccctcgga cagccgccc atggagggca ccagcccggc  
1800  
ctgtaccac agcagccgaa ttacaaacgc catatggacg gcatgtacgg gccccagcc  
1860  
aagcgccacg agggcgacat gtacaacatg cagtacagca gccagcagca ggagatgtac  
1920  
aaccagtatg gaggtccta ctggggccc gaccgcaggc ccatccaggg ccagtaccg  
1980  
tatccctaca gcagggagag gatgcagggc ccggggcaga tccagacaca cggaatcccg  
2040  
cttcagatga tggggggccc gctgcagtcg tctccagtg aggggcctca gcagaatatg  
2100  
tgggcagcac gcaatgatat gccttatccc taccagaaca ggcagggccc tggcgccct  
2160  
acacaggcgc ccccttacc aggcataaac cgcacagacg atatgatggt acccgatcag  
2220  
aggataaata atgagagcca gtggccttct caggtcagcc agcgtcagcc ttatatgtcg  
2280  
tctcagcct ccatacagc catcacagc ccaccacagc cgtctacca gacgccaccg  
2340  
tactgceaa atcacatctc cagggcgccc agcccagcgt ccttcagcg ctccctggag  
2400  
aaccgcatgt ctccaagcaa gtctcctttt ctgccgtcta tgaagatgca gaaggtcatg  
2460

cccacgggtcc ccacatccca ggtcaccggg ccaccacccc aaccaccccc aatcagaagg  
2520  
gagatcacct ttcctcctgg ctccagtagaa gcatacacaac cagtcttgaa acaaaggcga  
2580  
aagattacct ccaaagatat cggtactcct gaggcgtggc gtgtgatgat gtcccttaaa  
2640  
tcaggctctt tggtcgagag tacgtgggct ttggacacta ttaattctct tctgtatgat  
2700  
gacagcactg ttgctacttt caatctctcc cagttgtctg gatttctcga acttttagtc  
2760  
gagtacttta gaaaatgcct gattgacatt tttggaattc ttatggaata tgaagtggga  
2820  
gacccacgcc aaaaagcact tgatcacaac gcagcaagga aggatgacag ccagtccttg  
2880  
gcagacgatt ctgggaaaga ggaggaagat gctgaatgta ttgatgacga cgaggaagac  
2940  
gaggaggatg aggaggaaga cagcgagaag acagaaagcg atgaaaagag cagcatcgct  
3000  
ctgactgccc cggacgccgc tgcagaccca aaggagaagc ccaagcaagc cagtaagtcc  
3060  
gacaagctgc caataaagat agtcaaaaag aacaacctgt ttgttgttga ccgatctgac  
3120  
aagtgtgggc gtgtgcagga gttcaatagt ggccttctac actggcagct cggcgggggg  
3180  
gacaccaccg agcacattca gactcacttt gagagcaaga tggaaattcc tcctcgagg  
3240  
cgccacctc ccccttaag ctccgcaggt aagaagaaag agctggcagg caaaggcgac  
3300  
tctgaagagc agcaagagaa aagcatcata gcaaccattg atgacgtcct gtctgctgg  
3360  
ccaggggcat tgccggaaga cgcaaacctt gggcccaga ccgaaagcag taagtttccc  
3420  
tttggtatcc agcaagccaa aagtcaccgg aacatcaagc tgctggagga cgagcccagg  
3480  
agccgagacg agactccctt gtgtaccatc gcgcactggc aggactcgct ggctaagcga  
3540  
tgcatctgtg tgtccaatat tgtccgtagc ttgtcattcg tgcttgcaa tgatgccga  
3600  
atgtccaaac atccaggcct ggtgctgac ctggggaagc tgattcttct tcaccacgag  
3660  
catccagaga gaaagcgagc accgcagacc tatgagaaag aggaggatga ggacaagggg  
3720  
gtggcctgca gcaaagatga gtggtggtg gactgcctcg aggtcttgag ggataacacg  
3780  
ttggtcacgt tggccaacat ttccgggcag ctgacttgtt ctgcttacac ggaaagcatc  
3840  
tgcttgccaa ttttggatgg cttgctgcac tggatggtgt gccgctctgc agaggcaca  
3900  
gatcccttcc caactgtggg acccaactcg gtcccgctgc ctccagagact tgtgctggag  
3960  
accctctgta aactcagtat ccaggacaat aatgtggacc tgatcttggc cactcctcca  
4020  
tttagtcgtc aggagaaatt ctatgtaca ttagttaggt acgttgggga tcgcaaaaac  
4080

ccagtctgtc gagaaatgtc catggcgctt ttatcgaacc ttgccaagg ggacgcacta  
4140  
gcagcaaggg ccatagctgt gcagaaagga agcattggaa acttgataag cttcctagag  
4200  
gatgggggtca cgatggccca gtaccagcag agccagcaca acctcatgca catgcagccc  
4260  
ccgcccctgg aaccacctag cgtagacatg atgtgcaggg cggccaaggc tttgctagcc  
4320  
atggccagag tggacgaaaa ccgctcggaa ttccttttgc acgagggccg gttgctggat  
4380  
atctcgatat cagctgtcct gaactctctg gttgcctctg tcatctgtga tgtactgttt  
4440  
cagattgggc agttatgaca taagtgagaa ggcaagcatg tgtgagtga gattagaggg  
4500  
tcacatataa ctggctgttt tctgttcttg tttatccagc gtaggaagaa ggaaaagaaa  
4560  
atctttgtgc ctctgcccc ttactattt accaattggg aattaaagaa ataattaatt  
4620  
tgaacagtta tgaaattaat atttgctgtc tgtgtgtata agtacatcct ttggggtttt  
4680  
ttttttctct tttttttaac caaagttgct gtctagtga ttcaaaggc actttttgtt  
4740  
cttcacagat ctttttaatg ttctttccca tgttgtattg catttttggg ggaagcaaatt  
4800  
tgactttaaa gaaaaaagtt gtggcaaaag atgctaagat gcgaaaattt caccacactg  
4860  
agtcaaaaag gtgaaaaatt atccatttcc tatgcgtttt actcctcaga gaatgaaaaa  
4920  
aactgcatcc catcacccaa agttctgtgc aatagaaatt tctacagata caggatatag  
4980  
ggctcaagga ggtatgtcgg tcagtagtca aaactatgaa atgatactgg tttctccaca  
5040  
ggaatatggt tccattaggc tgggagcaaa aacaatgttt ttaagattg agaatacata  
5100  
cctgacaacg atccggaac tgctcctcac cactcccgtc atgcctgctg tcggcgtttg  
5160  
accttccag tgacagttct tcacaattcc tttcatcatt ttttaaatat ttttttact  
5220  
gcctatgggc tgtgatgtat atagaagttg tacattaaac ataccctcat ttttttctt  
5280  
tctttttttt ttttttttag tacaaagttt tagtttcttt ttcattgatgt ggtaactacg  
5340  
aagtgatggt agatttaaat aattttttat ttttatttta tatatttttt cattagggcc  
5400  
atatctccaa aaaaagaaag aaaaaatata aaaaacaaaa acaaaaaaaa aagagggtaa  
5460  
tgtacaagtt tctgtatgta taaagtcatg ctcgatttca ggagagcagc tgatcacaat  
5520  
ttgcttcag aatcaagggt tggaaatggt tatatatgga ttgatttaga aaatggttac  
5580  
cagtacagtc aaaaaagaga aaatgaaaaa aatacaacta aaaggaagaa acacaacttc  
5640  
aaagattttt cagtgatgag aatccacatt tgtatttcaa gataatgtag tttaaaaaaa  
5700

aaaaaaagaa aaaaacttga tgtaaattcc tccttttccct ctggcttaat gaatatcatt  
 5760  
 tattcagtat aaaatcttta tatgttccac atgttaagaa taaatgtaca ttaaactttg  
 5820  
 ttaagcactg tg  
 5832

<210> 1038

<211> 1485

<212> PRT

<213> Homo sapiens

<400> 1038

Pro	Ser	Pro	Gly	Gly	Gln	Met	His	Ala	Gly	Ile	Ser	Ser	Phe	Gln	Gln
1			5						10					15	
Ser	Asn	Ser	Ser	Gly	Thr	Tyr	Gly	Pro	Gln	Met	Ser	Gln	Tyr	Gly	Pro
		20					25					30			
Gln	Gly	Asn	Tyr	Ser	Arg	Pro	Pro	Ala	Tyr	Ser	Gly	Val	Pro	Ser	Ala
		35				40					45				
Ser	Tyr	Ser	Gly	Pro	Gly	Pro	Gly	Met	Gly	Ile	Ser	Ala	Asn	Asn	Gln
	50				55				60						
Met	His	Gly	Gln	Gly	Pro	Ser	Gln	Pro	Cys	Gly	Ala	Val	Pro	Leu	Gly
65				70				75					80		
Arg	Met	Pro	Ser	Ala	Gly	Met	Gln	Asn	Arg	Pro	Phe	Pro	Gly	Asn	Met
		85					90						95		
Ser	Ser	Met	Thr	Pro	Ser	Ser	Pro	Gly	Met	Ser	Gln	Gln	Gly	Gly	Pro
		100					105					110			
Gly	Met	Gly	Pro	Pro	Met	Pro	Thr	Val	Asn	Arg	Lys	Ala	Gln	Glu	Ala
		115				120					125				
Ala	Ala	Ala	Val	Met	Gln	Ala	Ala	Ala	Asn	Ser	Ala	Gln	Ser	Arg	Gln
	130				135					140					
Gly	Ser	Phe	Pro	Gly	Met	Asn	Gln	Ser	Gly	Leu	Met	Ala	Ser	Ser	Ser
145				150					155				160		
Pro	Tyr	Ser	Gln	Pro	Met	Asn	Asn	Ser	Ser	Ser	Leu	Met	Asn	Thr	Gln
		165					170						175		
Ala	Pro	Pro	Tyr	Ser	Met	Ala	Pro	Ala	Met	Val	Asn	Ser	Ser	Ala	Ala
		180					185					190			
Ser	Val	Gly	Leu	Ala	Asp	Met	Met	Ser	Pro	Gly	Glu	Ser	Lys	Leu	Pro
	195					200					205				
Leu	Pro	Leu	Lys	Ala	Asp	Gly	Lys	Glu	Glu	Gly	Thr	Pro	Gln	Pro	Glu
	210				215					220					
Ser	Lys	Ser	Lys	Asp	Ser	Tyr	Ser	Ser	Gln	Gly	Ile	Ser	Gln	Pro	Pro
225				230					235				240		
Thr	Pro	Gly	Asn	Leu	Pro	Val	Pro	Ser	Pro	Met	Ser	Pro	Ser	Ser	Ala
		245					250						255		
Ser	Ile	Ser	Ser	Phe	His	Gly	Asp	Glu	Ser	Asp	Ser	Ile	Ser	Ser	Pro
	260					265						270			
Gly	Trp	Pro	Lys	Thr	Pro	Ser	Ser	Pro	Lys	Ser	Ser	Ser	Ser	Thr	Thr
	275					280						285			
Thr	Gly	Glu	Lys	Ile	Thr	Lys	Val	Tyr	Glu	Leu	Gly	Asn	Glu	Pro	Glu
	290				295					300					
Arg	Lys	Leu	Trp	Val	Asp	Arg	Tyr	Leu	Thr	Phe	Met	Glu	Glu	Arg	Gly
305				310					315				320		
Ser	Pro	Val	Ser	Ser	Leu	Pro	Ala	Val	Gly	Lys	Lys	Pro	Leu	Asp	Leu

Phe	Arg	Leu	Tyr	Val	Cys	Val	Lys	Glu	Ile	Gly	Gly	Leu	Ala	Gln	Val
			340					345					350		
Asn	Lys	Asn	Lys	Lys	Trp	Arg	Glu	Leu	Ala	Thr	Asn	Leu	Asn	Val	Gly
		355					360					365			
Thr	Ser	Ser	Ser	Ala	Ala	Ser	Ser	Leu	Lys	Lys	Gln	Tyr	Ile	Gln	Tyr
	370					375					380				
Leu	Phe	Ala	Phe	Glu	Cys	Lys	Ile	Glu	Arg	Gly	Glu	Glu	Pro	Pro	Pro
385					390					395					400
Glu	Val	Phe	Ser	Thr	Gly	Asp	Thr	Lys	Lys	Gln	Pro	Lys	Leu	Gln	Pro
				405					410					415	
Pro	Ser	Pro	Ala	Asn	Ser	Gly	Ser	Leu	Gln	Gly	Pro	Gln	Thr	Pro	Gln
			420					425					430		
Ser	Thr	Gly	Ser	Asn	Ser	Met	Ala	Glu	Val	Pro	Gly	Asp	Leu	Lys	Pro
	435					440						445			
Pro	Thr	Pro	Ala	Ser	Thr	Pro	His	Gly	Gln	Met	Thr	Pro	Met	Gln	Gly
	450					455						460			
Gly	Arg	Ser	Ser	Thr	Ile	Ser	Val	His	Asp	Pro	Phe	Ser	Asp	Val	Ser
465					470					475					480
Asp	Ser	Ser	Phe	Pro	Lys	Arg	Asn	Ser	Met	Thr	Pro	Asn	Ala	Pro	Tyr
			485						490					495	
Gln	Gln	Gly	Met	Ser	Met	Pro	Asp	Val	Met	Gly	Arg	Met	Pro	Tyr	Glu
			500					505					510		
Pro	Asn	Lys	Asp	Pro	Phe	Gly	Gly	Met	Arg	Lys	Val	Pro	Gly	Ser	Ser
	515					520						525			
Glu	Pro	Phe	Met	Thr	Gln	Gly	Gln	Met	Pro	Asn	Ser	Ser	Met	Gln	Asp
	530					535					540				
Met	Tyr	Asn	Gln	Ser	Pro	Ser	Gly	Ala	Met	Ser	Asn	Leu	Gly	Met	Gly
545					550					555					560
Gln	Arg	Gln	Gln	Phe	Pro	Tyr	Gly	Ala	Ser	Tyr	Asp	Arg	Arg	His	Glu
				565				570						575	
Pro	Tyr	Gly	Gln	Gln	Tyr	Pro	Gly	Gln	Gly	Pro	Pro	Ser	Gly	Gln	Pro
			580				585						590		
Pro	Tyr	Gly	Gly	His	Gln	Pro	Gly	Leu	Tyr	Pro	Gln	Gln	Pro	Asn	Tyr
	595					600						605			
Lys	Arg	His	Met	Asp	Gly	Met	Tyr	Gly	Pro	Pro	Ala	Lys	Arg	His	Glu
	610				615						620				
Gly	Asp	Met	Tyr	Asn	Met	Gln	Tyr	Ser	Ser	Gln	Gln	Gln	Glu	Met	Tyr
625				630						635					640
Asn	Gln	Tyr	Gly	Gly	Ser	Tyr	Ser	Gly	Pro	Asp	Arg	Arg	Pro	Ile	Gln
			645					650						655	
Gly	Gln	Tyr	Pro	Tyr	Pro	Tyr	Ser	Arg	Glu	Arg	Met	Gln	Gly	Pro	Gly
			660					665				670			
Gln	Ile	Gln	Thr	His	Gly	Ile	Pro	Leu	Gln	Met	Met				



755	760	765
Thr Arg Pro Pro Gln Pro Ser Tyr Gln Thr Pro Pro Ser Leu Pro Asn		
770	775	780
His Ile Ser Arg Ala Pro Ser Pro Ala Ser Phe Gln Arg Ser Leu Glu		
785	790	800
Asn Arg Met Ser Pro Ser Lys Ser Pro Phe Leu Pro Ser Met Lys Met		
805	810	815
Gln Lys Val Met Pro Thr Val Pro Thr Ser Gln Val Thr Gly Pro Pro		
820	825	830
Pro Gln Pro Pro Pro Ile Arg Arg Glu Ile Thr Phe Pro Pro Gly Ser		
835	840	845
Val Glu Ala Ser Gln Pro Val Leu Lys Gln Arg Arg Lys Ile Thr Ser		
850	855	860
Lys Asp Ile Val Thr Pro Glu Ala Trp Arg Val Met Met Ser Leu Lys		
865	870	875
Ser Gly Leu Leu Ala Glu Ser Thr Trp Ala Leu Asp Thr Ile Asn Ile		
885	890	895
Leu Leu Tyr Asp Asp Ser Thr Val Ala Thr Phe Asn Leu Ser Gln Leu		
900	905	910
Ser Gly Phe Leu Glu Leu Leu Val Glu Tyr Phe Arg Lys Cys Leu Ile		
915	920	925
Asp Ile Phe Gly Ile Leu Met Glu Tyr Glu Val Gly Asp Pro Ser Gln		
930	935	940
Lys Ala Leu Asp His Asn Ala Ala Arg Lys Asp Asp Ser Gln Ser Leu		
945	950	955
Ala Asp Asp Ser Gly Lys Glu Glu Glu Asp Ala Glu Cys Ile Asp Asp		
965	970	975
Asp Glu Glu Asp Glu Glu Asp Glu Glu Glu Asp Ser Glu Lys Thr Glu		
980	985	990
Ser Asp Glu Lys Ser Ser Ile Ala Leu Thr Ala Pro Asp Ala Ala Ala		
995	1000	1005
Asp Pro Lys Glu Lys Pro Lys Gln Ala Ser Lys Phe Asp Lys Leu Pro		
1010	1015	1020
Ile Lys Ile Val Lys Lys Asn Asn Leu Phe Val Val Asp Arg Ser Asp		
1025	1030	1035
Lys Leu Gly Arg Val Gln Glu Phe Asn Ser Gly Leu Leu His Trp Gln		
1045	1050	1055
Leu Gly Gly Gly Asp Thr Thr Glu His Ile Gln Thr His Phe Glu Ser		
1060	1065	1070
Lys Met Glu Ile Pro Pro Arg Arg Arg Pro Pro Pro Pro Leu Ser Ser		
1075	1080	1085
Ala Gly Lys Lys Lys Glu Leu Ala Gly Lys Gly Asp Ser Glu Glu Gln		
1090	1095	1100
Gln Glu Lys Ser Ile Ile Ala Thr Ile Asp Asp Val Leu Ser Ala Arg		
1105	1110	1115
Pro Gly Ala Leu Pro Glu Asp Ala Asn Pro Gly Pro Gln Thr Glu Ser		
1125	1130	1135
Ser Lys Phe Pro Phe Gly Ile Gln Gln Ala Lys Ser His Arg Asn Ile		
1140	1145	1150
Lys Leu Leu Glu Asp Glu Pro Arg Ser Arg Asp Glu Thr Pro Leu Cys		
1155	1160	1165
Thr Ile Ala His Trp Gln Asp Ser Leu Ala Lys Arg Cys Ile Cys Val		
1170	1175	1180
Ser Asn Ile Val Arg Ser Leu Ser Phe Val Pro Gly Asn Asp Ala Glu		

1185                      1190                      1195                      1200  
 Met Ser Lys His Pro Gly Leu Val Leu Ile Leu Gly Lys Leu Ile Leu  
                          1205                      1210                      1215  
 Leu His His Glu His Pro Glu Arg Lys Arg Ala Pro Gln Thr Tyr Glu  
                          1220                      1225                      1230  
 Lys Glu Glu Asp Glu Asp Lys Gly Val Ala Cys Ser Lys Asp Glu Trp  
                          1235                      1240                      1245  
 Trp Trp Asp Cys Leu Glu Val Leu Arg Asp Asn Thr Leu Val Thr Leu  
                          1250                      1255                      1260  
 Ala Asn Ile Ser Gly Gln Leu Asp Leu Ser Ala Tyr Thr Glu Ser Ile  
 1265                      1270                      1275                      1280  
 Cys Leu Pro Ile Leu Asp Gly Leu Leu His Trp Met Val Cys Pro Ser  
                          1285                      1290                      1295  
 Ala Glu Ala Gln Asp Pro Phe Pro Thr Val Gly Pro Asn Ser Val Pro  
                          1300                      1305                      1310  
 Ser Pro Gln Arg Leu Val Leu Glu Thr Leu Cys Lys Leu Ser Ile Gln  
                          1315                      1320                      1325  
 Asp Asn Asn Val Asp Leu Ile Leu Ala Thr Pro Pro Phe Ser Arg Gln  
                          1330                      1335                      1340  
 Glu Lys Phe Tyr Ala Thr Leu Val Arg Tyr Val Gly Asp Arg Lys Asn  
 1345                      1350                      1355                      1360  
 Pro Val Cys Arg Glu Met Ser Met Ala Leu Leu Ser Asn Leu Ala Gln  
                          1365                      1370                      1375  
 Gly Asp Ala Leu Ala Ala Arg Ala Ile Ala Val Gln Lys Gly Ser Ile  
                          1380                      1385                      1390  
 Gly Asn Leu Ile Ser Phe Leu Glu Asp Gly Val Thr Met Ala Gln Tyr  
                          1395                      1400                      1405  
 Gln Gln Ser Gln His Asn Leu Met His Met Gln Pro Pro Pro Leu Glu  
                          1410                      1415                      1420  
 Pro Pro Ser Val Asp Met Met Cys Arg Ala Ala Lys Ala Leu Leu Ala  
 1425                      1430                      1435                      1440  
 Met Ala Arg Val Asp Glu Asn Arg Ser Glu Phe Leu Leu His Glu Gly  
                          1445                      1450                      1455  
 Arg Leu Leu Asp Ile Ser Ile Ser Ala Val Leu Asn Ser Leu Val Ala  
                          1460                      1465                      1470  
 Ser Val Ile Cys Asp Val Leu Phe Gln Ile Gly Gln Leu  
                          1475                      1480                      1485

&lt;210&gt; 1039

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1039

gcaggagcca gggatgctgc tgaacatccc gcagtgcacg agacaggcct ccaccacacg  
60

gaattacctt ggcctgaggt gttacgagag cacagagaga aaccaggtag agacgcgagg  
120

cagaggggag agaggggagag agtgtgagag ctaagggtttc gggagaagac tttgtggaaa  
180

aagtctttgg ctgggtcctg caacatagcc aggattcagt gacaggtag gaccactcca  
240

gattttgtat gtattgaagg ccctgaatac ttttttgaag gagaatgaca tgagtacacc  
300

tggtcagcca cacgtgagag gggttggagg agggaagtac cagaggcagg gagaccaggt

360

agaaagacct cgccatagt

379

<210> 1040

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1040

Met	Ala	Arg	Ser	Phe	Tyr	Leu	Val	Ser	Leu	Pro	Leu	Val	Leu	Pro	Ser
1			5					10					15		
Ser	Asn	Pro	Ser	His	Val	Trp	Leu	Thr	Arg	Cys	Thr	His	Val	Ile	Leu
		20					25					30			
Phe	Gln	Lys	Ser	Ile	Gln	Gly	Leu	Gln	Tyr	Ile	Gln	Asn	Leu	Glu	Trp
	35					40					45				
Ser	Ser	Pro	Val	Thr	Glu	Ser	Trp	Leu	Cys	Cys	Arg	Thr	Gln	Pro	Lys
	50					55				60					
Thr	Phe	Ser	Thr	Lys	Ser	Ser	Pro	Glu	Thr	Leu	Ala	Leu	Thr	Leu	Ser
65				70					75				80		
Pro	Ser	Leu	Pro	Ser	Ala	Pro	Arg	Leu	Tyr	Leu	Val	Ser	Leu	Cys	Ala
		85					90					95			
Leu	Val	Thr	Pro	Gln	Ala	Lys	Val	Ile	Pro	Cys	Gly	Gly	Gly	Leu	Ser
	100						105					110			
Arg	Ala	Leu	Arg	Asp	Val	Gln	Gln	His	Pro	Trp	Leu	Leu			
	115					120					125				

<210> 1041

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1041

ttagtgcccg tggaggccat cggctacatc gcgagtattg acaaggccga tatgtcaatc  
60  
gaaacggcgt acctgccgcg gctgttggtt tccttgccc tgaccatccc ggtgctcgcc  
120  
ttgtcgatga tcccgccct gcaactcccc cattggccgt tgtgggcgtt ggcgcttacc  
180  
accccggtgg tgttctgggg tgctggccg ctgcaccaag ccgcgtggac caacctgcgg  
240  
cacggcgcg ccatcatgga caccctggtg tcgctcggcg tcctcacttc gtacctctgg  
300  
tcggtatgga tgetgaccac aggcggcgag cacctctacc tggaggtagc cgtccaccgt  
360  
cacgacgctg atcctggccg gcaaattt  
388

<210> 1042

<211> 129

<212> PRT

<213> Homo sapiens

&lt;400&gt; 1042

Leu Val Ala Val Glu Ala Ile Gly Tyr Ile Ala Ser Ile Asp Lys Ala  
 1 5 10 15  
 Asp Met Ser Ile Glu Thr Ala Tyr Leu Pro Arg Leu Leu Val Ser Leu  
 20 25 30  
 Ala Leu Thr Ile Pro Val Leu Ala Leu Ser Met Ile Pro Ala Leu His  
 35 40 45  
 Phe Pro His Trp Pro Leu Trp Ala Leu Ala Leu Thr Thr Pro Val Val  
 50 55 60  
 Phe Trp Gly Ala Trp Pro Leu His His Ala Ala Trp Thr Asn Leu Arg  
 65 70 75 80  
 His Gly Ala Ala Ile Met Asp Thr Leu Val Ser Leu Gly Val Leu Thr  
 85 90 95  
 Ser Tyr Leu Trp Ser Val Trp Met Leu Thr Thr Gly Gly Glu His Leu  
 100 105 110  
 Tyr Leu Glu Val Ala Val His Arg His Asp Ala Asp Pro Gly Arg Gln  
 115 120 125  
 Ile

&lt;210&gt; 1043

&lt;211&gt; 555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1043

accggtgaaa ccctgatcgg ccaatcggtt tccaccgttc ccggcggcaa gggcgcaaac  
 60  
 caggcgggtcg ctctggcgcg tcttggggcc gaagtcgcga tggtcgggtg cgtgggtacc  
 120  
 gatgcctacg gcgcgcaatt acgcgacgca ttgttggtgg aaggcatcga ttgccaggcc  
 180  
 gtcagcaccg tcgacgggtc cagcgggtg gcgctgatcg tggtaggatga cagcagccag  
 240  
 aatgcgatcg ttatcgtcgc cggtagcaat ggcgagctga ctccggccaa gttacagacc  
 300  
 tttgacagcg tgctgcaggc tgccgacgtg attgtctgcc agcttgagac gccgatggag  
 360  
 actgtcggcc atgcgcctaa gcgcggtcgc gaactgggca agacgggtgat cctcaatccg  
 420  
 gcgcccggca gcggcccgt gctgaggat tggtagccg ccatcgatta cctgattccc  
 480  
 aacgaaagcg aagcctcggc cttgagtggc gtggtggtgg attcactgga cagcgccaag  
 540  
 gtcgctgcta cgcgt  
 555

&lt;210&gt; 1044

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1044

Thr Gly Glu Thr Leu Ile Gly Gln Ser Phe Ser Thr Val Pro Gly Gly

```

      1             5             10             15
Lys Gly Ala Asn Gln Ala Val Ala Ser Ala Arg Leu Gly Ala Glu Val
      20             25             30
Ala Met Val Gly Cys Val Gly Thr Asp Ala Tyr Gly Ala Gln Leu Arg
      35             40             45
Asp Ala Leu Leu Val Glu Gly Ile Asp Cys Gln Ala Val Ser Thr Val
      50             55             60
Asp Gly Ser Ser Gly Val Ala Leu Ile Val Val Asp Asp Ser Ser Gln
      65             70             75             80
Asn Ala Ile Val Ile Val Ala Gly Ser Asn Gly Glu Leu Thr Pro Ala
      85             90             95
Lys Leu Gln Thr Phe Asp Ser Val Leu Gln Ala Ala Asp Val Ile Val
      100            105            110
Cys Gln Leu Glu Thr Pro Met Asp Thr Val Gly His Ala Pro Lys Arg
      115            120            125
Gly Arg Glu Leu Gly Lys Thr Val Ile Leu Asn Pro Ala Pro Ala Ser
      130            135            140
Gly Pro Leu Pro Glu Asp Trp Tyr Ala Ala Ile Asp Tyr Leu Ile Pro
      145            150            155            160
Asn Glu Ser Glu Ala Ser Ala Leu Ser Gly Val Val Val Asp Ser Leu
      165            170            175
Asp Ser Ala Lys Val Ala Ala Thr Arg
      180            185

```

&lt;210&gt; 1045

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1045

```

ctattgccat actaccgccg cggcaaccta caggacatga tcaacgccaa cctcttcaat
60
cactccaaat tccccgagac gcaccttatg aatctatttc tcggcgctctg caaggccctg
120
cgcgccatgc acgattacca cgcaccgccg gcagagcgca tgccaattgg gcaccgaagg
180
cagaccacca cccaggtgca aagcaacagt ggtagagcgg tcgctcatcg acgaaacgta
240
cggaagaaga cgaagagacg gagcaggaaa gacctgttat ggaatcacag aaccacatcg
300
ggcagggcgg cgagcacaaa accatatgcg catcgcgaca ttaaaccagg tacgtgctgc
360
aagctcctcg g
371

```

&lt;210&gt; 1046

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1046

```

Leu Leu Pro Tyr Tyr Arg Arg Gly Asn Leu Gln Asp Met Ile Asn Ala
1             5             10             15
Asn Leu Phe Asn His Ser Lys Phe Pro Glu Thr His Leu Met Asn Leu

```

<400> 1048  
Xaa Ala Gln Lys Asp Leu Asp Glu Ala Leu Pro Ala Leu Asp Ala Ala

1	5	10	15
Leu Ala Ser	Leu Arg Asn Leu Asn Lys Asn Glu Val Thr Gln Val Arg		
20	25	30	
Ala Met Gln Arg Pro Pro Pro Gly Val Lys Leu Val Ile Glu Ala Val			
35	40	45	
Cys Ile Met Lys Gly Ile Lys Pro Lys Lys Val Pro Gly Glu Lys Pro			
50	55	60	
Gly Thr Lys Val Asp Asp Tyr Trp Glu Pro Gly Lys Gly Leu Leu Gln			
65	70	75	80
Asp Pro Gly His Phe Leu Glu Ser Leu Phe Lys Phe Asp Lys Asp Asn			
85	90	95	
Ile Gly Asp Val Val Ile Lys Ala Ile Gln Pro Tyr Ile Asp Asn Glu			
100	105	110	
Glu Phe Gln Pro Ala Thr Ile Ala Lys Val Ser Lys Gly Cys Pro Phe			
115	120	125	
Ile Trp Pro Trp Gly Gly Ala Met Pro Lys Tyr Pro Phe Val Ala Lys			
130	135	140	
Ala Val Glu Pro Lys Arg Gln Ala Leu Leu Glu Ala Gln Asp Asp Leu			
145	150	155	160
Gly Val Thr Gln Arg Ile Leu Asp Glu Ala Lys Gln Arg Leu Arg Glu			
165	170	175	
Val Glu Asp Gly Ile Ala Thr Met Gln Ala Lys Tyr Arg Glu Cys Ile			
180	185	190	
Thr Lys Lys Glu Glu Leu Glu Leu Lys Cys Glu Gln Cys Glu Gln Arg			
195	200	205	
Leu Gly His Ala Gly Lys Val Arg Thr Leu Leu Leu Gln Gly Leu Gln			
210	215	220	
Ala Gly Pro Ala Gln Thr Gly Ala Arg Lys Asp Gln Gly Ala Gly Gly			
225	230	235	240
Ser Trp Gly Gly Cys Pro Thr Pro Ser Leu Ala			
245	250		

&lt;210&gt; 1049

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1049

cgcagcaata gctgcacttg accagactgg gctttgcaat aagcgcatc cccgggctga  
60  
atgctgcaga tccttacagg ctgactgcag ggtgtttcag attctcctgg agtcacacgt  
120  
gccagcttga tttcaagaaa caactagaat aacagttttc tgataagaag tctatagcac  
180  
tttatggctt acataatcca gagatagatg ggctgggcat gattccatt ttctgttggg  
240  
gaaaccgact cacagagaag ttaagggaca agtataaagt gatgaaactg tgtactgaac  
300  
ctcatgtctc ccagactccc ggggtccccg gctttttctc ggggcgccc cattcacatt  
360  
gcaattcatg gccggggcaa atgctcacc acagagatat taagcactcc aacactccat  
420  
ccaccagggt gcagccaaag gattcagaag acaatgatca ttccatcagc atgcactatg  
480

cagctaaaga aagggttttgg catgctctgc tttattgttt cacagaagat aagaaaataa  
540

actgcaaagt aacttaag  
558

<210> 1050

<211> 112

<212> PRT

<213> Homo sapiens

<400> 1050

Met	Ile	Pro	Ile	Phe	Cys	Trp	Gly	Asn	Arg	Leu	Thr	Glu	Lys	Leu	Arg
1				5				10						15	
Asp	Lys	Tyr	Lys	Val	Met	Lys	Leu	Cys	Thr	Glu	Pro	His	Val	Ser	Gln
			20				25						30		
Thr	Pro	Gly	Ser	Pro	Gly	Phe	Phe	Ser	Gly	Arg	Pro	His	Ser	His	Cys
		35				40						45			
Asn	Ser	Trp	Pro	Gly	Gln	Met	Leu	Thr	His	Arg	Asp	Ile	Lys	His	Ser
		50			55					60					
Asn	Thr	Pro	Ser	Thr	Arg	Leu	Gln	Pro	Lys	Asp	Ser	Glu	Asp	Asn	Asp
65					70					75				80	
His	Ser	Ile	Ser	Met	His	Tyr	Ala	Ala	Lys	Glu	Arg	Phe	Trp	His	Ala
			85					90					95		
Leu	Leu	Tyr	Cys	Phe	Thr	Glu	Asp	Lys	Lys	Ile	Asn	Cys	Lys	Val	Thr
			100					105						110	

<210> 1051

<211> 317

<212> DNA

<213> Homo sapiens

<400> 1051

gcgttgagtc gggatgtcgc attcatgccc ggcgaaacctt tttttgccga accggagcgt  
60  
aatccgggta atcttcgtct caatttcagt cacatcgcac cggagcgtct ggacgaagggt  
120  
ctcaagcgcc tggctgctgt catccgtcac gcacaggctg cacaagcggc ttaaggggag  
180  
ggccatgtac aaggtttatg gcgattacca gtcgggcaat tgctacaaga tcaagctgat  
240  
gctgcacctg ctggggcagg aatatcgctg gcacccgggg gacatcctca aggtgacacc  
300  
gagaccccg aattttt  
317

<210> 1052

<211> 57

<212> PRT

<213> Homo sapiens

<400> 1052

Ala	Leu	Ser	Arg	Asp	Val	Ala	Phe	Met	Pro	Gly	Glu	Pro	Phe	Phe	Ala
1					5				10				15		
Glu	Pro	Glu	Arg	Asn	Pro	Gly	Asn	Leu	Arg	Leu	Asn	Phe	Ser	His	Ile